# Agenda

- **Welcome and Presenter Introductions**   **Jordan Feld, MD, MPH**
- **COVID-19 in Canada**   **Kelly W. Burak, MD, FRCPC, MSc(Epid)**
- **COVID-19 in Mexico**   **Laura Cisneros, MD**
- **U.S. Public Health Response to COVID-19**   **Brett E. Fortune, MD, MSc**
- **Q&A and Panel Discussion**   **Moderators and Presenters**

Joint Webinar

AASLD
AMERICAN ASSOCIATION FOR
THE STUDY OF LIVER DISEASES

ASOCIACIÓN MEXICANA DE HEPATOLOGÍA

Canadian Association
for the Study of the Liver

CASL
ACEF
Association canadienne
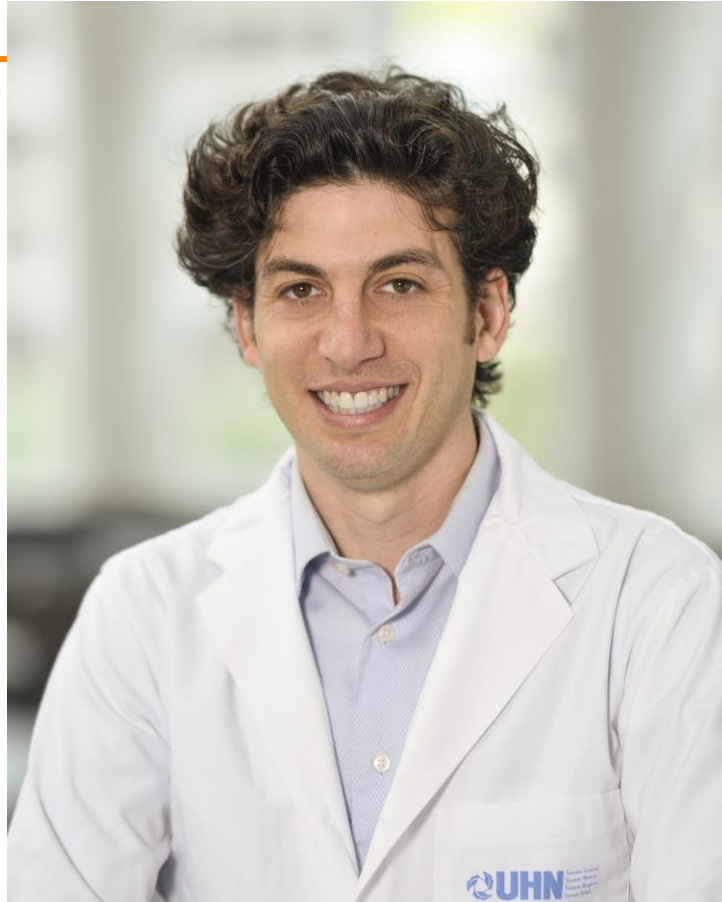pour l'étude du foie

Webinar Q&A

- Submit your questions anytime during the webinar in the Q&A box at the top or bottom of your screen.
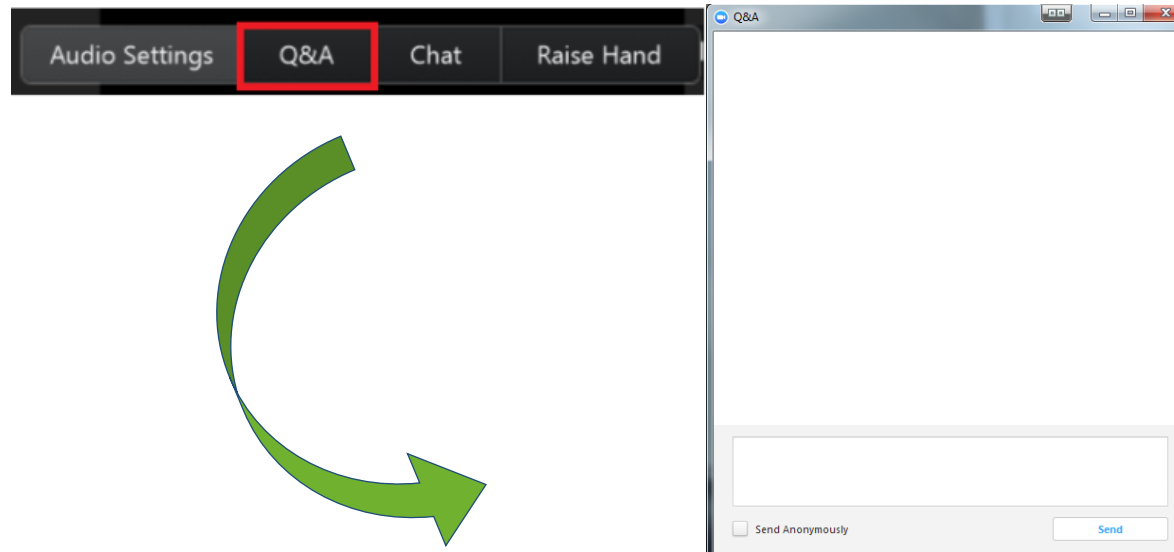
- Questions will be answered at the end of the presentations.

Webinar Moderator

Jordan Feld, MD, MPH

Associate Professor of Medicine,
University of Toronto
Toronto, Ontario, CANADA

President, Canadian Association for the Study of the Liver

Webinar Moderator

Ignacio Aiza, MD

Director
Clinic for Liver Diseases
Hospital Angeles Lomas
Mexico City, MEXICO

Director International Relations AMH

Webinar Moderator

Jennifer Price, MD, PhD

Associate Professor
Department of Medicine and
Division of Gastroenterology and Hepatology
University of California, San Francisco (UCSF)
Director of the UCSF Viral Hepatitis Center
San Francisco, CA, USA

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Webinar Presenter

Kelly W. Burak, MD, FRCPC, MSc(Epid)

Professor, Medicine and Oncology
Associate Dean, Continuing Medical Education & Professional Development
Co-Lead, Physician Learning Program
Cumming School of Medicine, University of Calgary
Calgary, Alberta, CANADA

Webinar Presenter

Laura Cisneros, MD

Hepatologist, Gastroenterologist
Center for Liver Disease and Transplantation
Hospital San José Tec Salud
Monterrey, Nuevo León, MEXICO

President of the Mexican Association for the Study of the Liver

Webinar Presenter

Brett E. Fortune, MD, MSc

Associate Professor of Medicine
Center for Liver Disease and Transplantation
Weill Cornell Medicine
New York Presbyterian Hospital
New York, New York, USA

Poll Question

Please let us know where you are watching from, what type setting do you most often work and what your primary role is

COVID-19 in Canada

Kelly W. Burak, MD, FRCPC, MSc(Epid)

Professor, Medicine and Oncology

Associate Dean, Continuing Medical Education & Professional Development

Co-Lead, Physician Learning Program

Cumming School of Medicine, University of Calgary

Calgary, Alberta, CANADA

Conflict of Interest Disclosure

- Faculty: **Kelly Burak**
- Relationships with financial interests:
  - Grants/Research Support: none
  - Speakers Bureau/Honoraria: none
  - Consulting Fees: none
  - Patents: none
  - Other: Employee of University of Calgary

NATIONAL POST

How an Edmonton curling tournament became a hotspot for the COVID-19 outbreak in Canada

BY TYLER DAWSON
ORIGINALLY PUBLISHED: MAR 27, 2020

How do we compare?

31,920,652 Cases
977,311 Deaths

Country	Surface Area (M km²)	World Rank	Population (M)	World Rank
Canada	9.98	2	37.4	39
USA	9.53	4	329.1	3
Mexico	1.96	13	127.6	10

Country	COVID-19 Cases	World Rank	COVID-19 Deaths	World Rank
Canada	149,939	26	9,294	20
USA	6,935,414	1	201,920	1
Mexico	710,049	7	73,258	4

https://coronavirus.jhu.edu/map.html

as of September 24, 2020
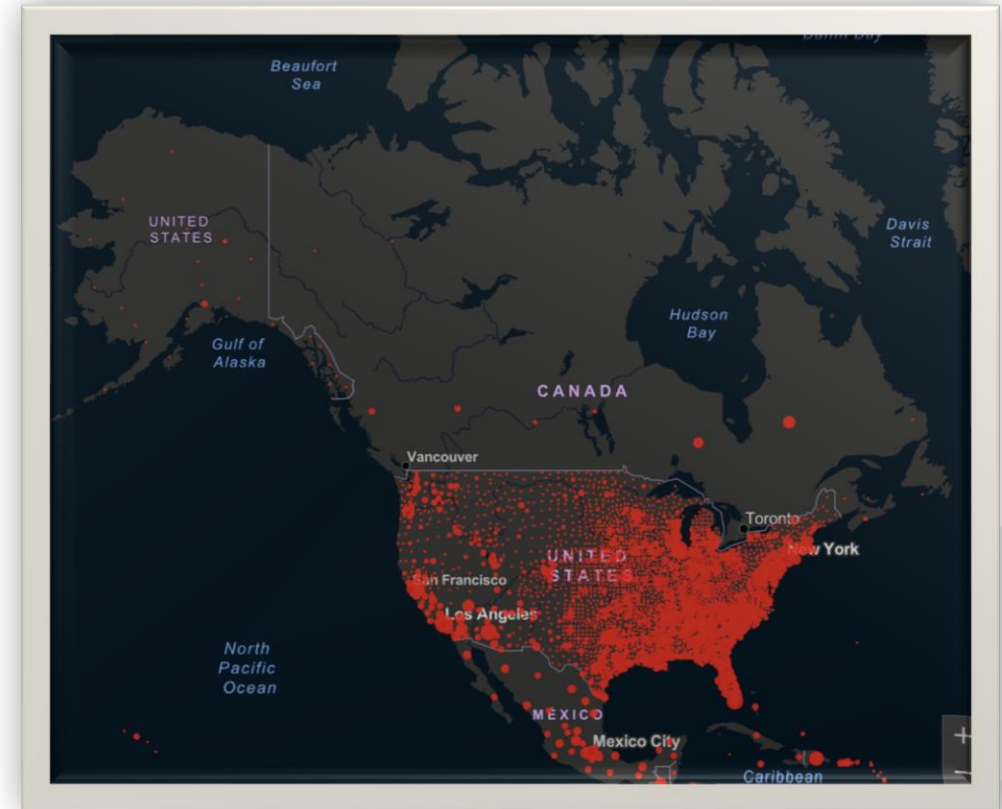
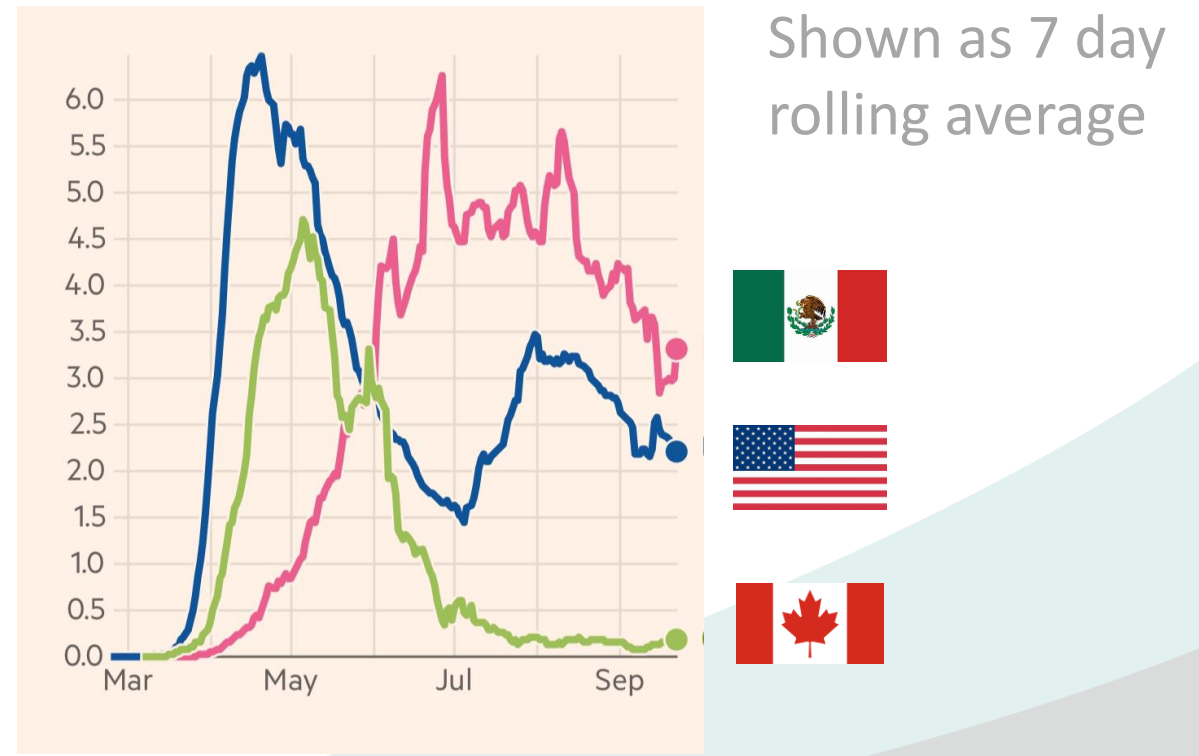# How do we compare?

COVID-19 cases per million
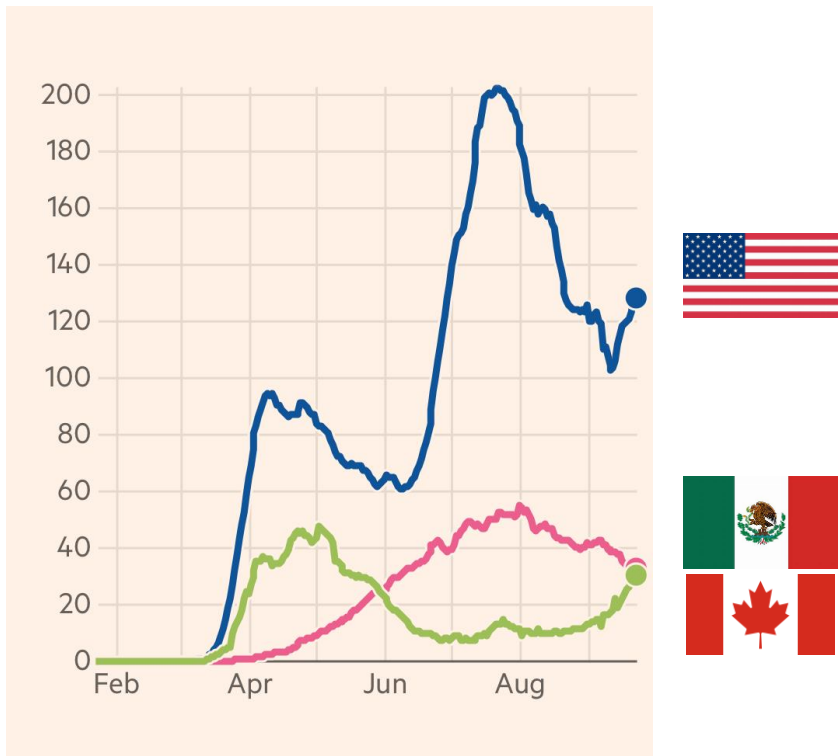
COVID-19 deaths per million

Shown as 7 day rolling average

https://ig.ft.com/

as of September 24, 2020

COVID-19 Cases and Deaths in Canada

https://health-infobase.canada.ca/covid-19/

as of September 20, 2020
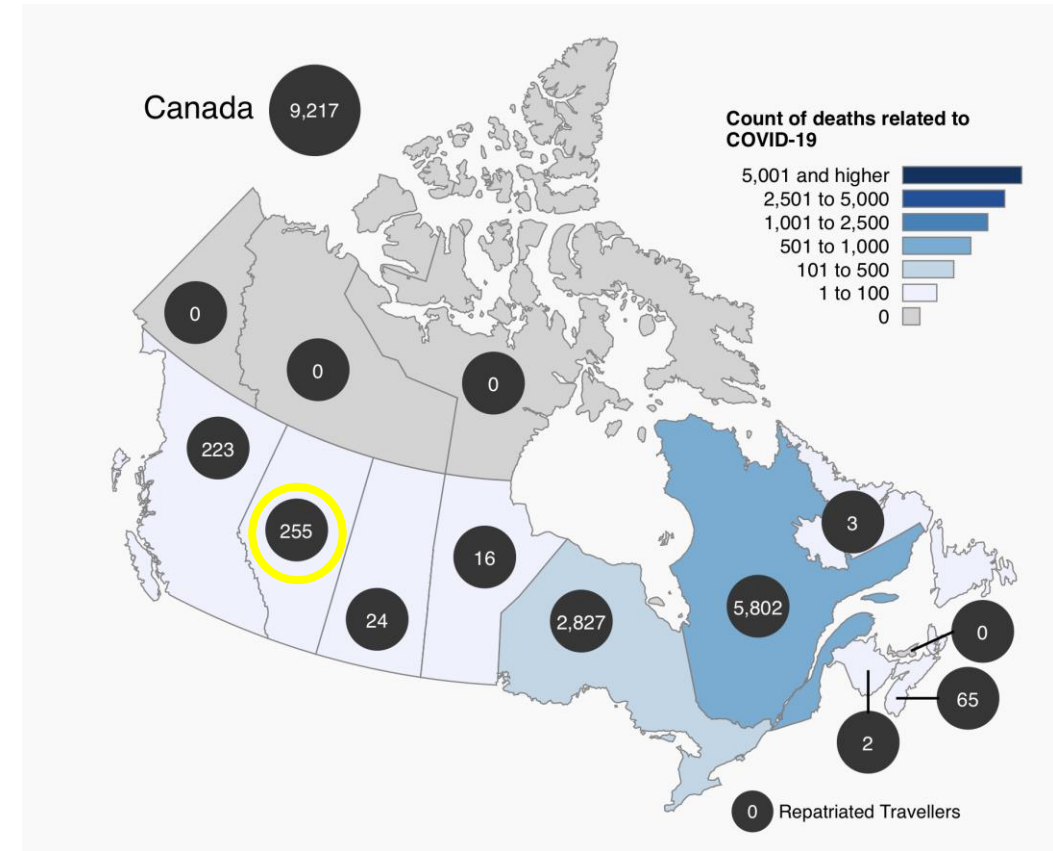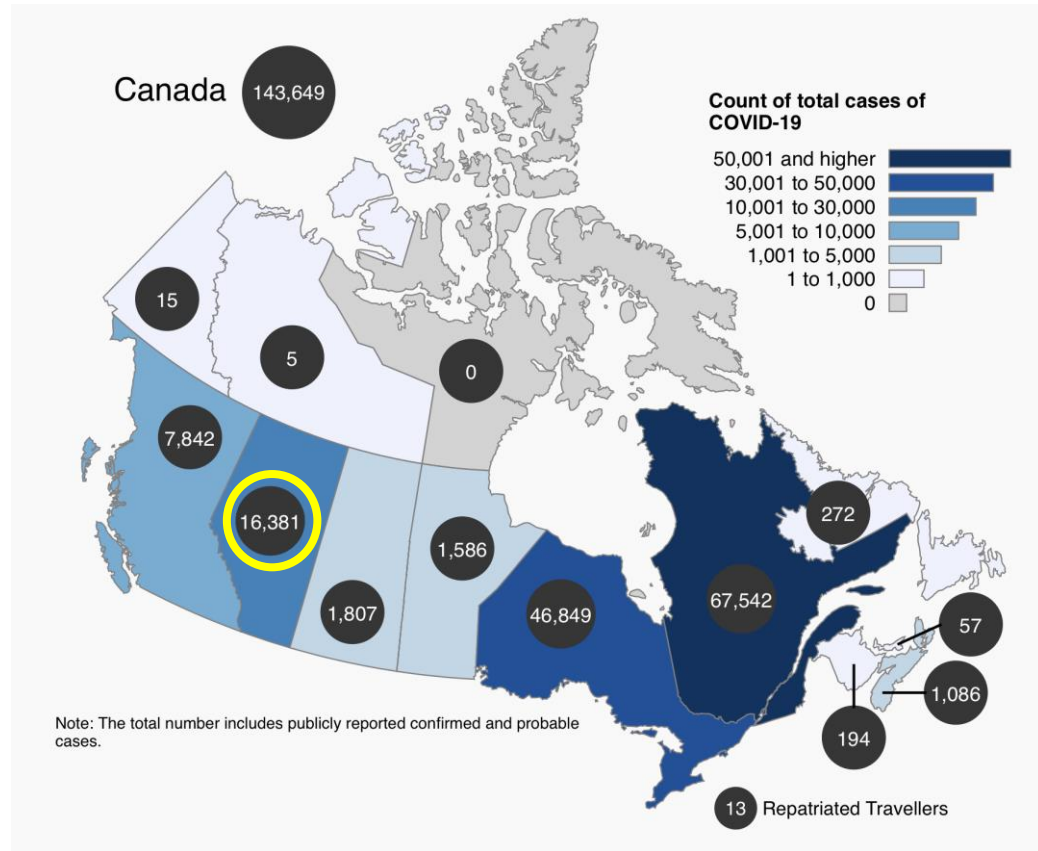
COVID-19 Deaths in Canada by Age

90% of COVID-19 related deaths in Canada are in persons over 70 years old

https://health-infobase.canada.ca/covid-19/

as of September 20, 2020
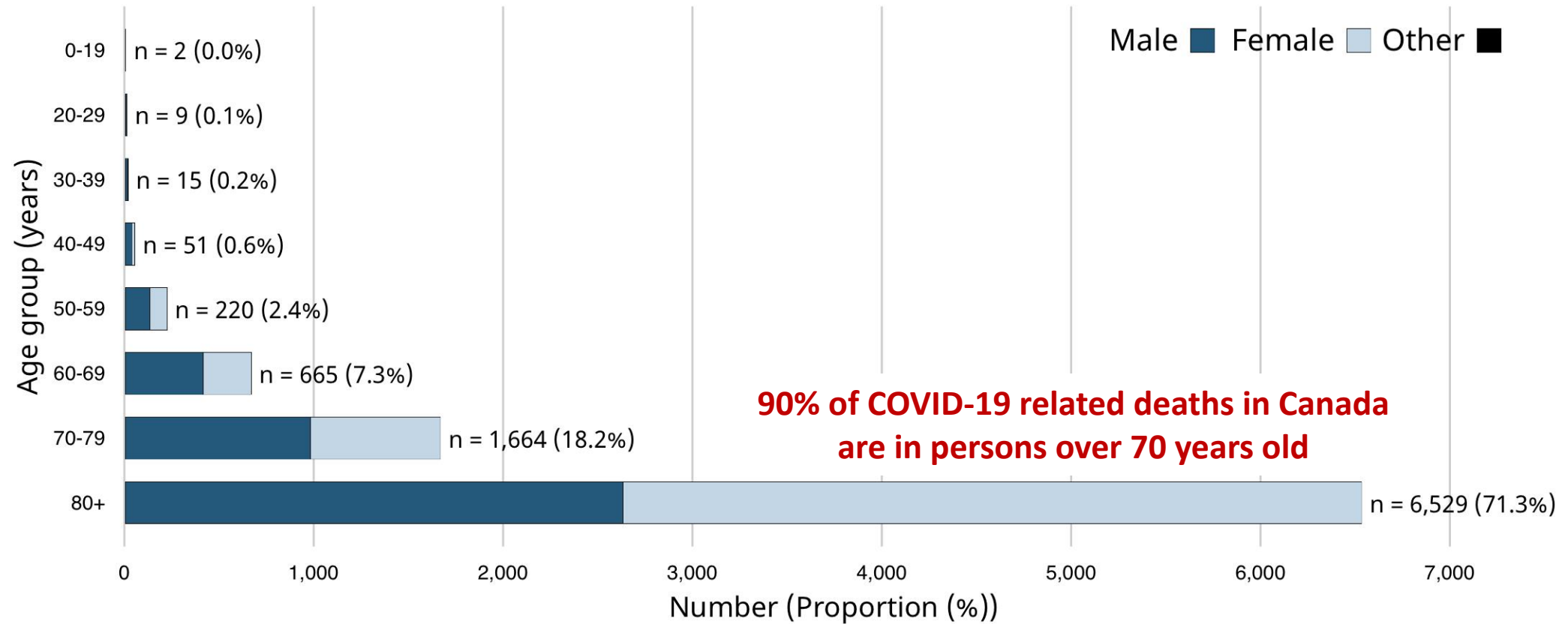
Healthcare Spending in Canada

How much will we spend on health in 2019?

$264.4 billion

↑ 3.9% growth

$7,068 per person

11.6% of GDP

Current — Constant ($ 1997) — O Forecast
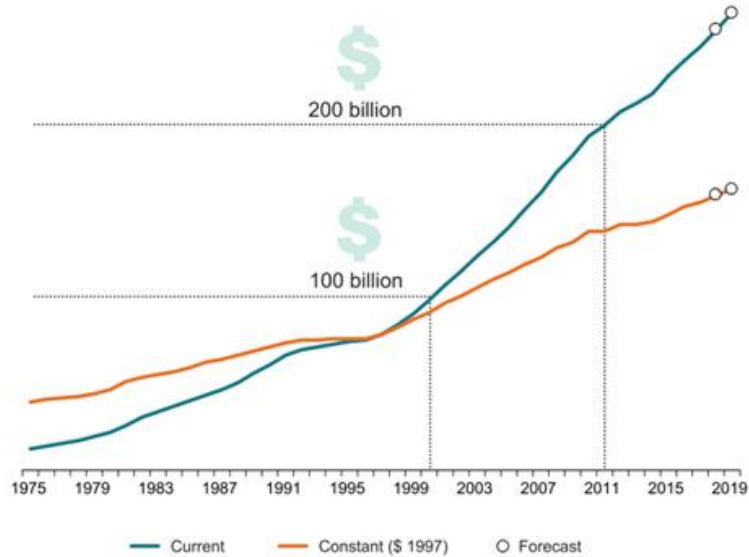
Source
National Health Expenditure Database, Canadian Institute for Health Information.

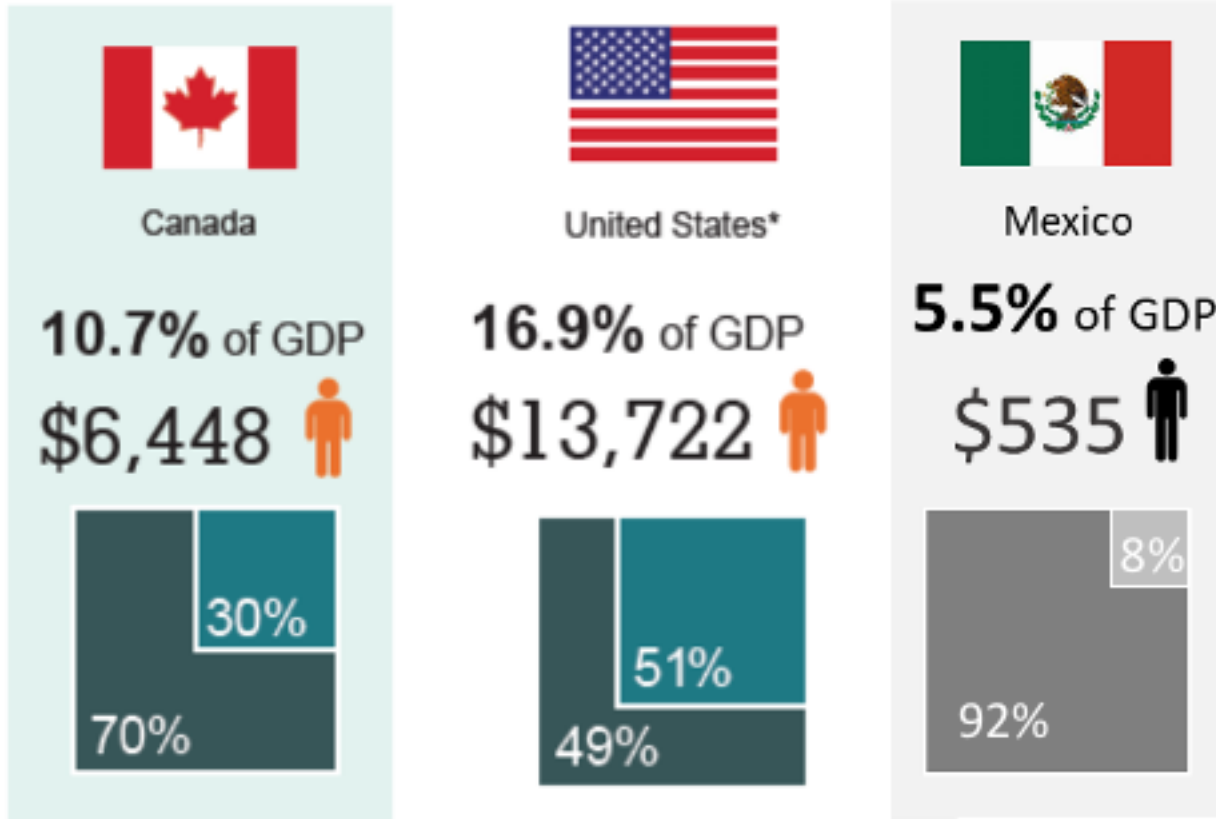© 2019 Canadian Institute for Health Information

CIHI

30%
Private
Out of pocket: 14.4%
Private insurance: 12.3%
Other: 2.9%

70%
Public
Provincial and territorial governments: 65.1%
Other public sector: 5.3%

Forecasted for 2019

https://secure.cihi.ca/free_products/nhex-trends-narrative-report-2019-en-web.pdf

How do we compare?

Canada
10.7% of GDP
$6,448
30%
70%

United States*
16.9% of GDP
$13,722
51%
49%

Mexico
5.5% of GDP
$535
8%
92%

Healthcare Spending in 2018

Data for Mexico obtained from
https://www.statista.com/statistics/

https://secure.cihi.ca/free_products/nhex-trends-narrative-report-2019-en-web.pdf

Calgary fashion brands celebrate Canada's top female medical officers with T-shirts

https://www.theglobeandmail.com/life/style/article-covid-couture-calgary-fashion-brands-feature-medical-chiefs-on-t/#c-image-0
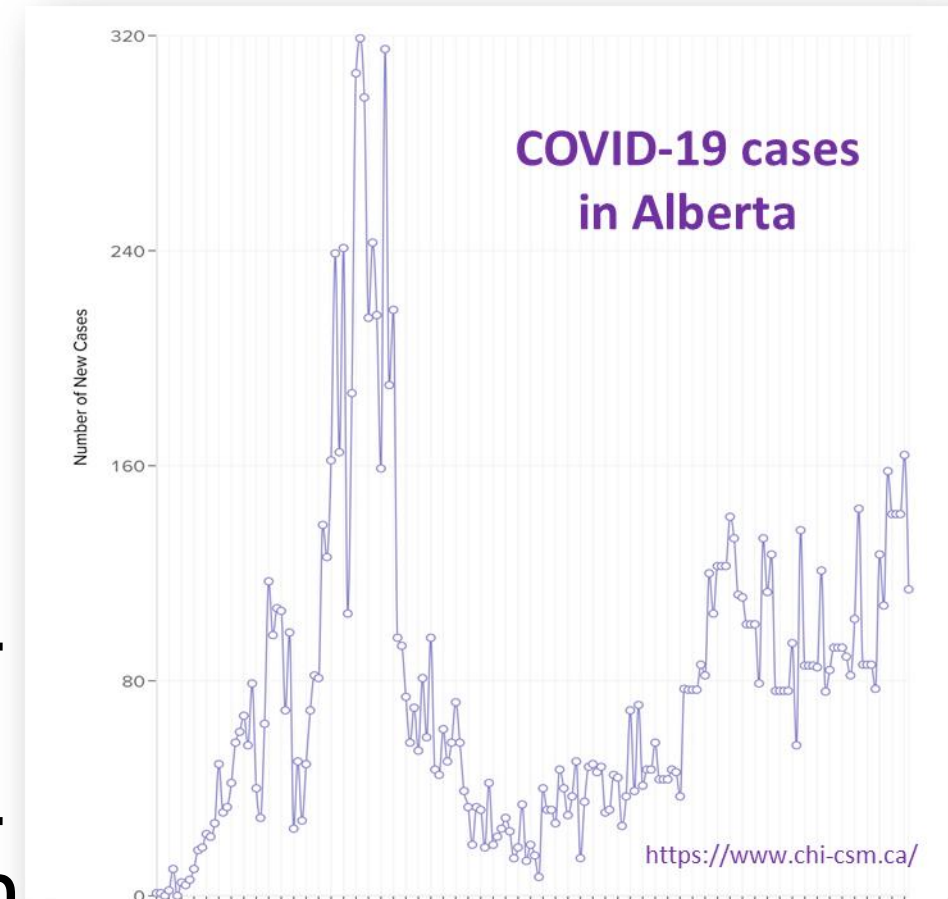
Congly SE, et al. Can Liver J 2020;
https://canlivj.utpjournals.press/doi/abs/10.3138/canlivj-2020-0007
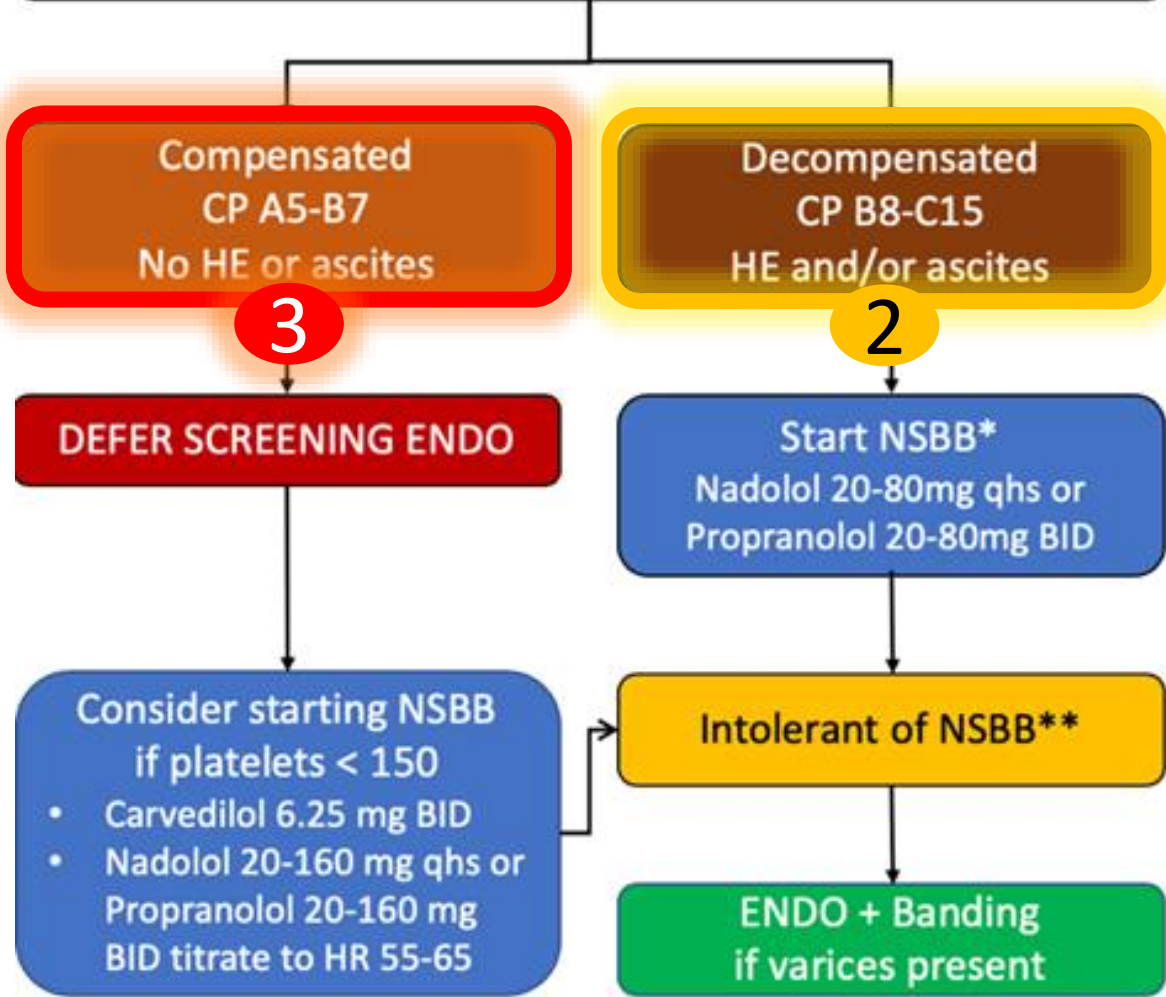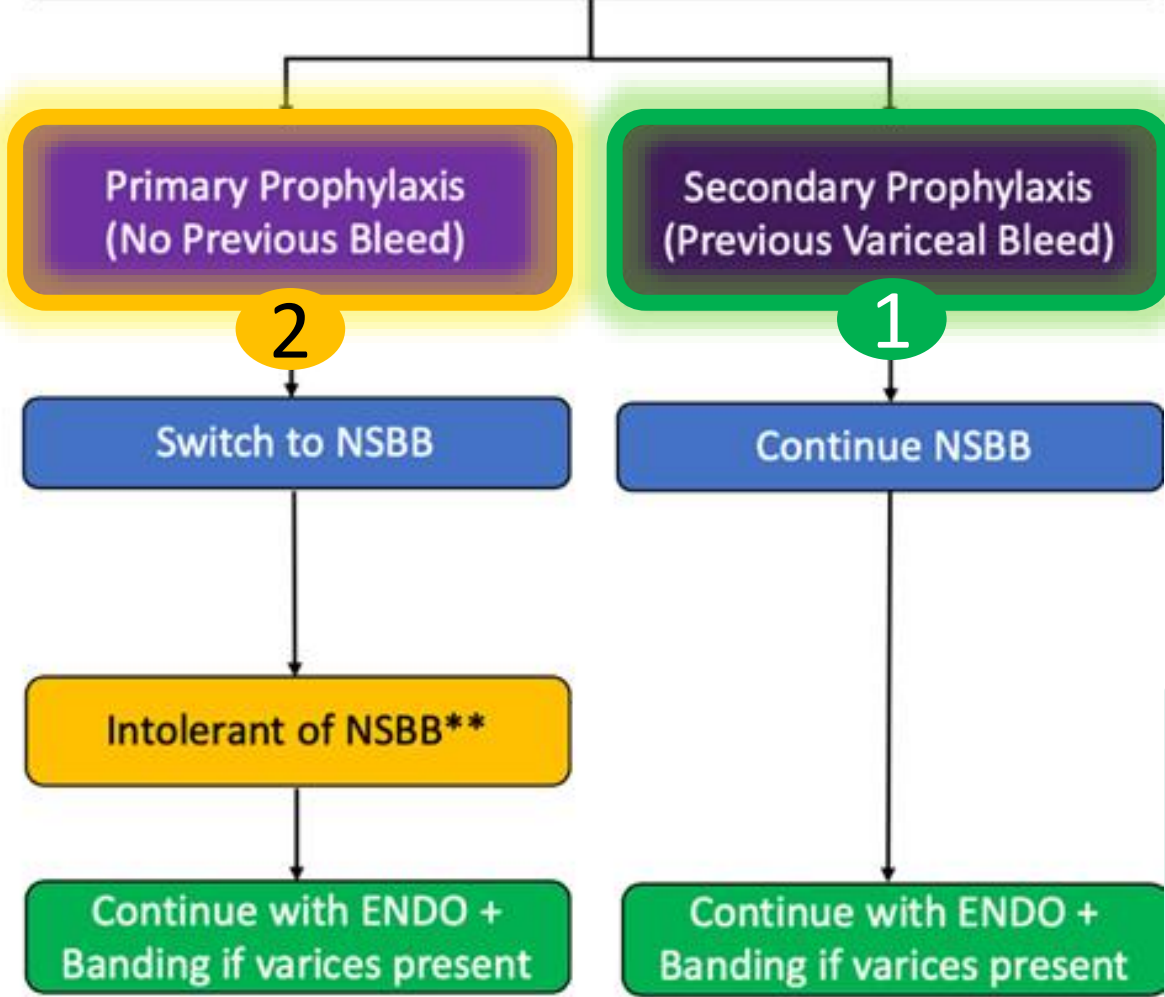
COVID-19 Testing

Verna Yiu
@dryiu_verna

Alberta Precision Labs has reached another incredible milestone of completing 1 MILLION #COVID19 tests. We know how critical testing is to the overall #COVID19 response. #ThankYou 🤝 APL team for ur commitment & dedication to all Albertans!!! @AHS_media
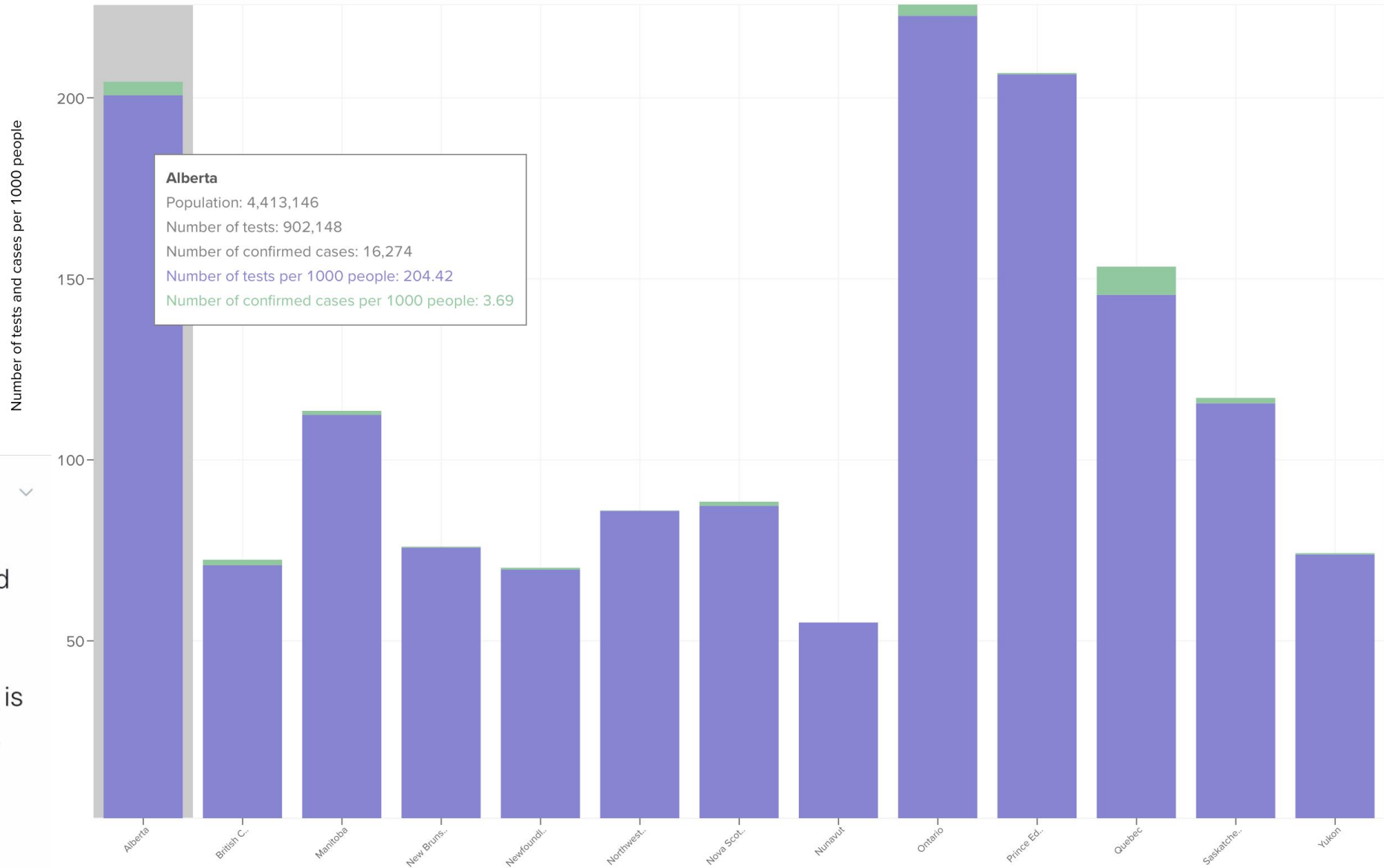
Alberta
Population: 4,413,146
Number of tests: 902,148
Number of confirmed cases: 16,274
Number of tests per 1000 people: 204.42
Number of confirmed cases per 1000 people: 3.69

https://www.chi-csm.ca/

as of September 20, 2020

949 cases (2 deaths)
2,000 workers
1,560 cases

CBC news.ca

Inside the slaughterhouse

North America's largest single coronavirus outbreak started at this Alberta meat-packing plant. Take a look within.
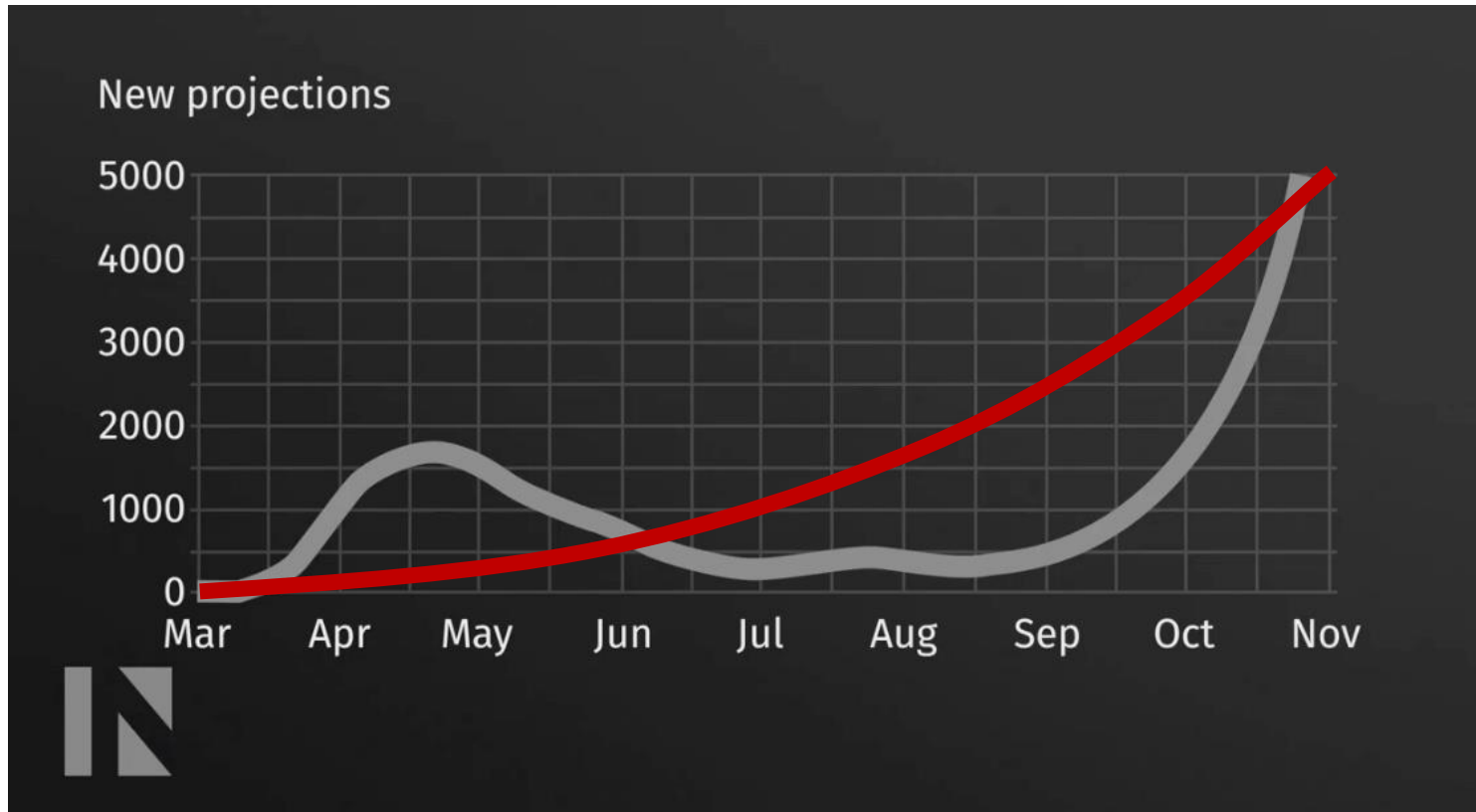

CNN

Live TV

They came to Canada as essential workers. Hundreds were infected with the coronavirus on the job

By Paula Newton, CNN

Updated 3:53 PM EDT, Tue June 16, 2020

Second Wave

New projections

"**Other Second Wave**" due to
- Deferred care & ↓ screening
- ↓ mental health & ↑ addictions
- Economic loss
- Burnout amongst HCWs

Conclusions

- Canada has faired relatively well during pandemic
  - Strong public health system
  - Access to testing and contact tracing
- COVID-19 has unmasked issues
  - Long-term care of elderly, vulnerable populations (low SEC, immigrants)
  - Slow to open → How will we deal with back log of deferred care?

    How will we sustain our publicly funded healthcare?

For further information please contact

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Twitter: @kwburak

Conflict of Interest Disclosure

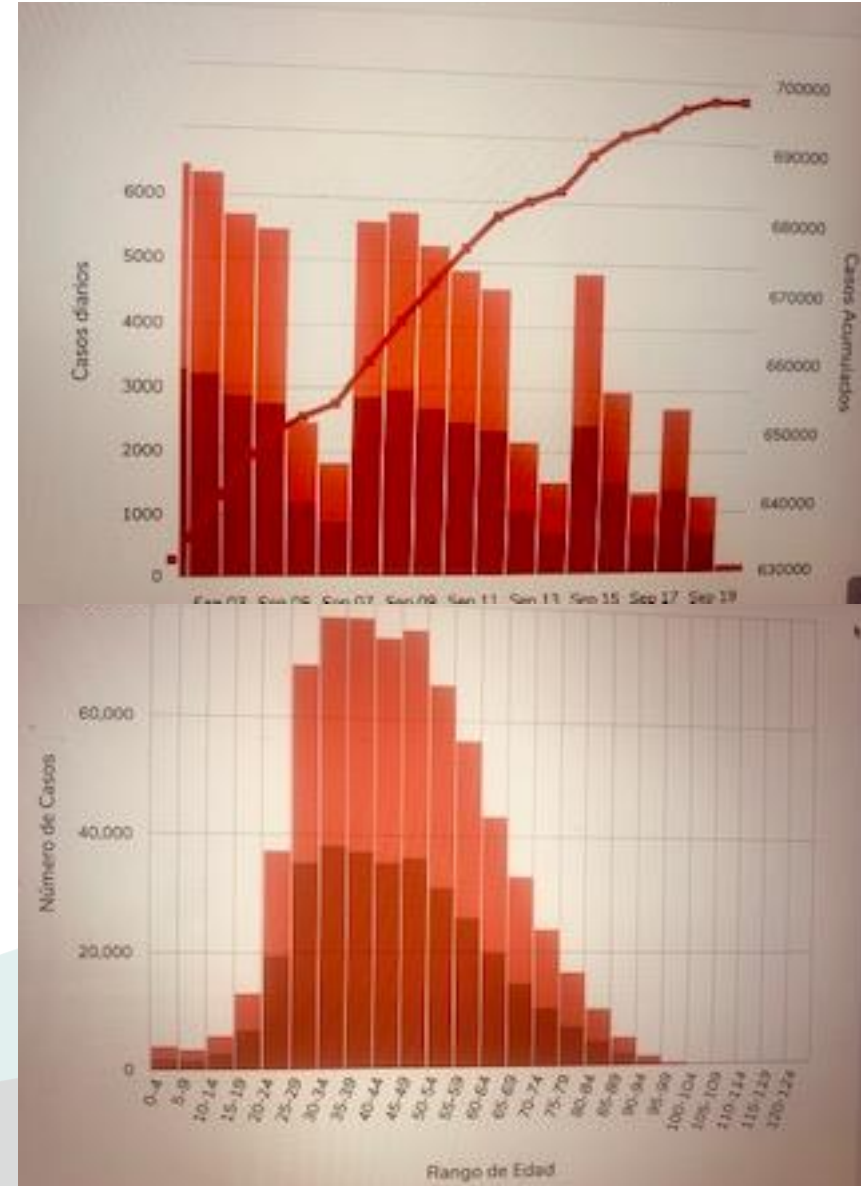- Relationships with financial interests:
  - Grants/Research Support: none
  - Speakers Bureau: Gilead, Bristol, Abbvie, Roche, Bayer
  - Consulting Fees: none
  - Patents: none

Epidemiology of COVID-19 in México

- Total Contagions : 700,580
- Confirmed active cases : 29,423
- Deaths : 73,697
- Suspected cases : 81,597
- Hospitalized : 24.37%
- Ambulatory : 75.63%
- Women : 47.93 %
- Men : 52.07%

Mexican Health Care System

- Public Hospitals :
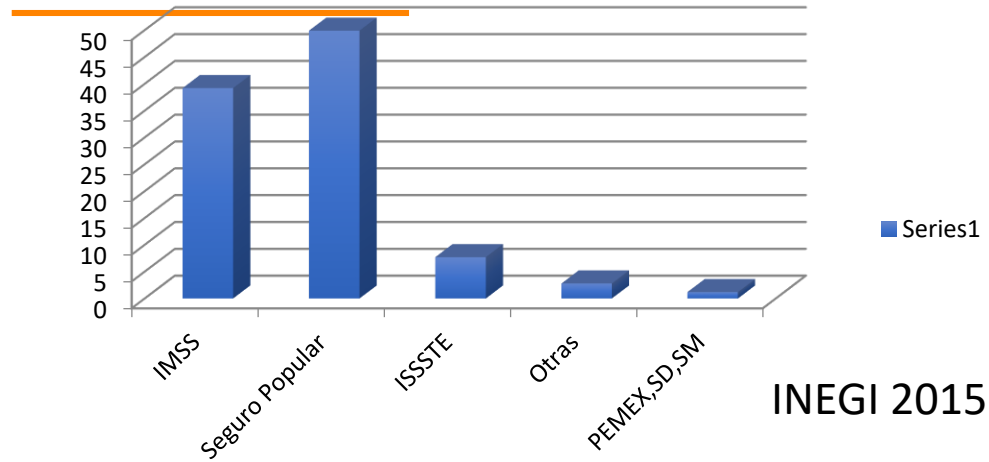
IMSS   (39.9%)

SSA: INNCMSZ,INER,INSABI

ISSSTE   (7.7%)

PEMEX (1.2%)

SEDENA(1%)

INEGI 2015

- Private Hospitals:
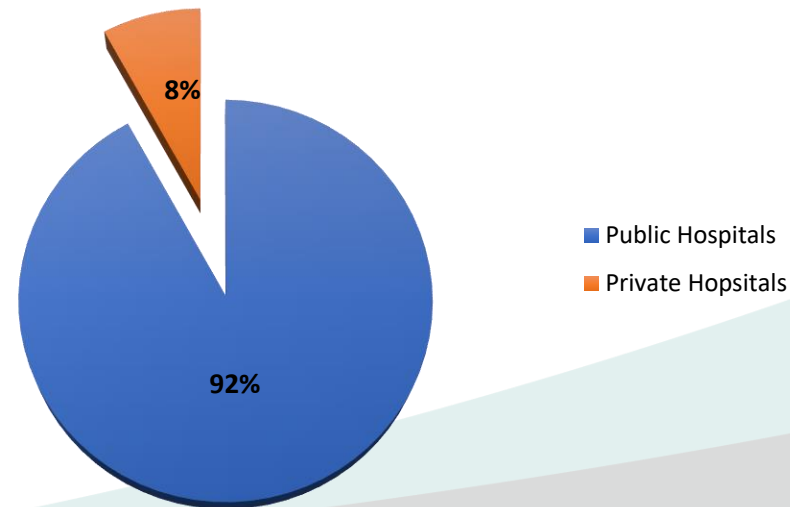
Epidemiological COVID-19 Semaphore
Sept 7-13 ,2020

Control Policies

- Use of obligatory face mask everywhere
- Continue hand washing. Use of hand sanitizing gel
- Taking people´s temperature at every point of entry with infrared thermometer
- Keeping safe distance of 1.5 mts
- Increase in the detection using more diagnostic tests
- Diagnosis with PCR test oropharyngeal and nasopharyngeal samples and isolation of postive cases
- Re-inforce of the monitoring systems
- Potentializing primary care services to improve the detection, prevention and monitoring
- Reduction of concentration of people through the restrictions in the nocturnal events. Closing time limits.
- Implementing contact tracing

Control Policies

- We do not have

  CONTACT TRACING PROGRAM

Public Policies for the Containment of COVID-19

The Oxford COVID-19 Government Response Tracker
1. School Closures
2. Labor environmental suspension
3. Public event cancelation
4. Public transport suspension
5. Informative campaign development
6. Interstate travel restrictions
7. International travel control
8. Mandatory staying home
9. Restrictions to the size of group gathering

Proportion of the population reporting always wearing a mask when leaving home on August 24 2020
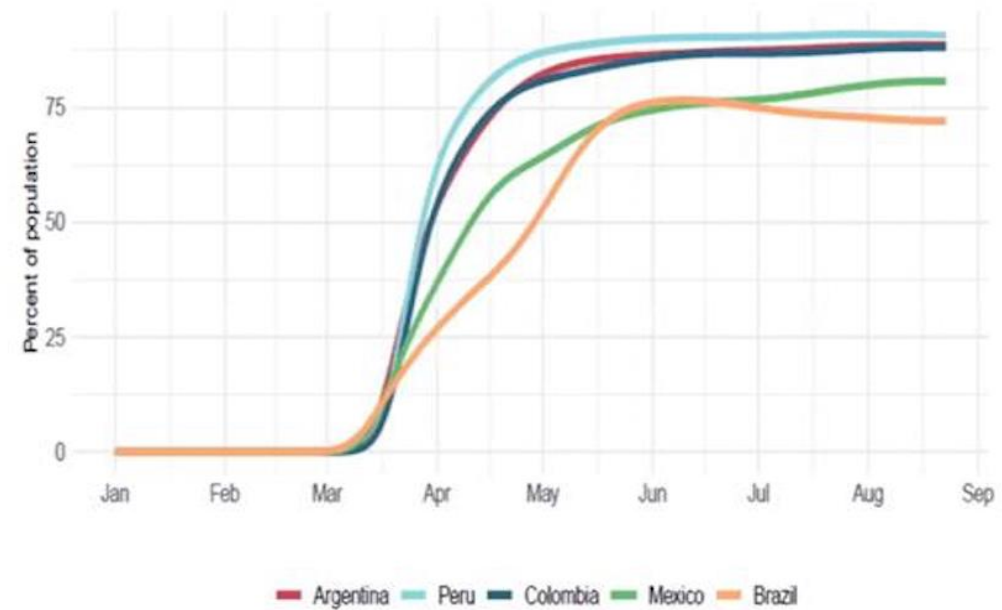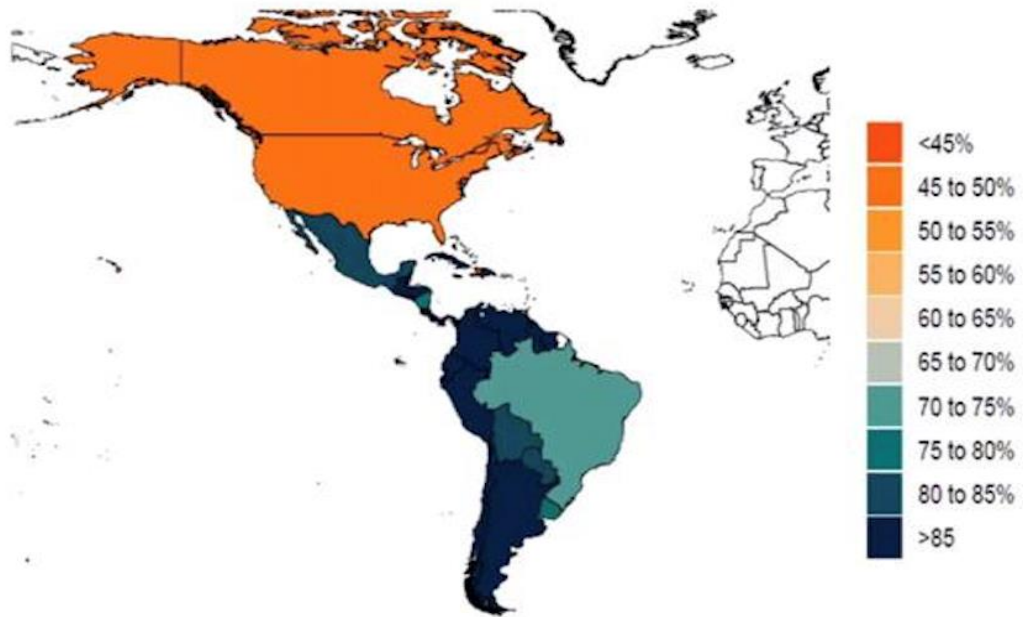
Legend:
- <45%
- 45 to 50%
- 50 to 55%
- 55 to 60%
- 60 to 65%
- 65 to 70%
- 70 to 75%
- 75 to 80%
- 80 to 85%
- >85

Chart legend: Argentina, Peru, Colombia, Mexico, Brazil

Diagnostic Test

COVID-19 diagnostic tests per 100,000 people on August 20 2020
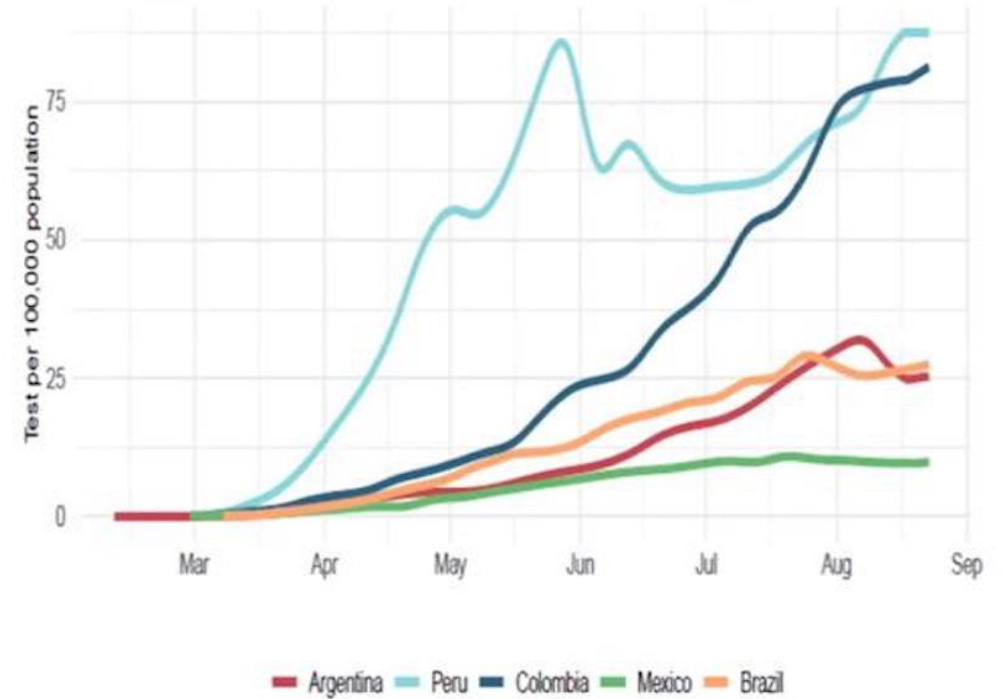
Source: IHME, University of Washington, 2020. Available from https://covid19.healthdata.org

IHME | UNIVERSITY of WASHINGTON

11

Rate :Tests/1000 Inhabitants
Source: Our World in Data (May 11 to August 25)

Reino Unido (2.5)
Estados Unidos (2.2)
Chile (1.4)
Colombia (0.6)
Costa Rica (0.4)
Perú (0.4)
Bolivia (0.4)
Argentina (0.4)
Brasil (0.4)
Ecuador (0.2)
México (0.1)

Mar 25 Abr 25 May 25 Jun 25 Jul 25 Ago 25

Fuente: Estimaciones propias con base en datos de Our World in Data
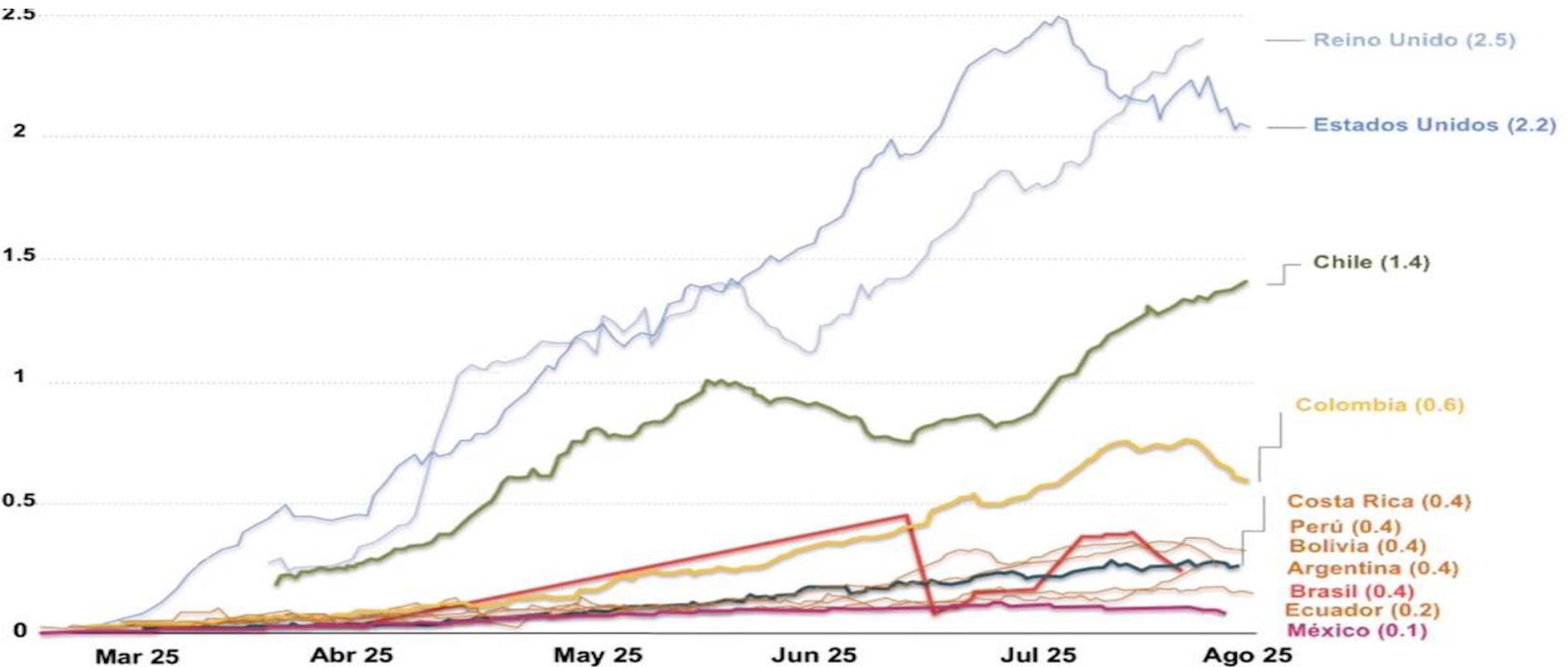
% of Positive Cases per Diagnostic Tests Done
Source: Our World Data
(March 14-August 25)
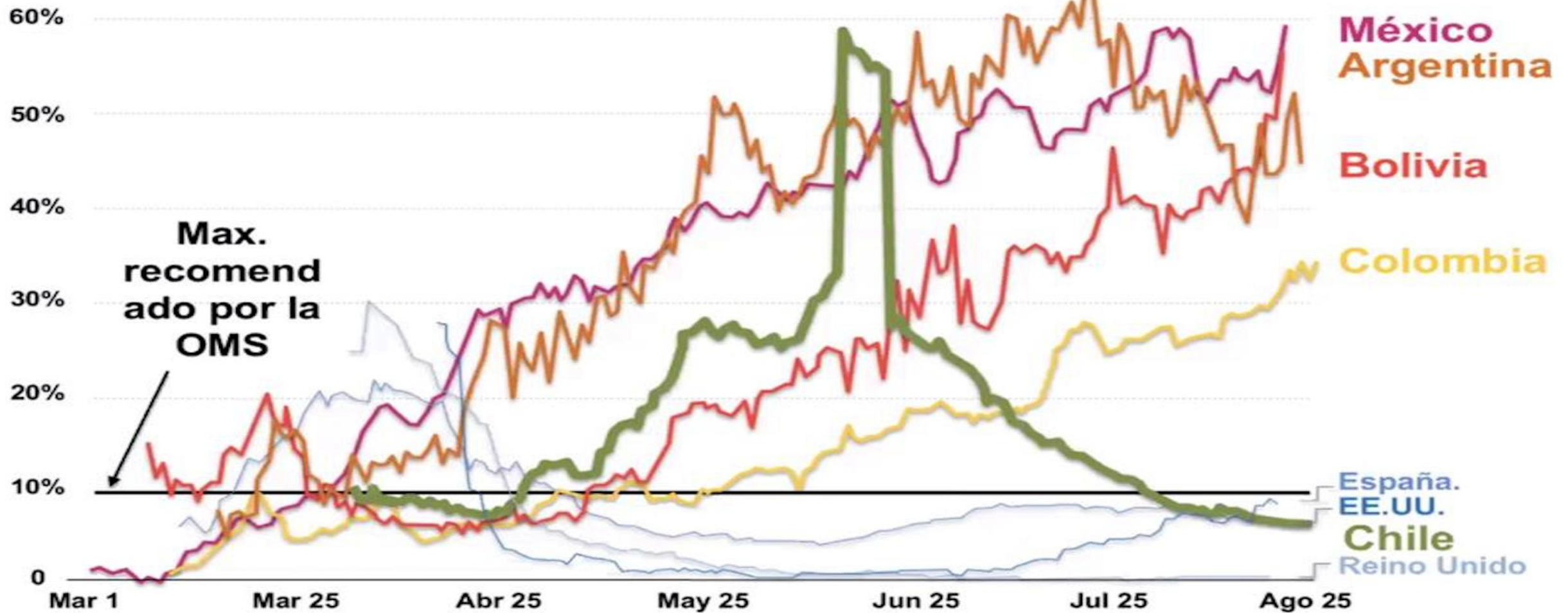
Fuente: Estimaciones propias con base en datos de Our World in Data.
Nota: Las comparaciones de datos de las pruebas entre países se ven afectadas por las diferencias en la forma en que se informan los datos. Los datos diarios se interpolan para los países que no reportan datos de pruebas a diario. Los detalles se pueden encontrar en la página Testing Dataset.

Diagnostic Tests

- **IMSS** : Primary care ➡ suspicious patient ➡ work - leave / 14 days.
  The tests are done in 25% of the patients
  mainly in hospitalized cases

- **SSA** : 2000 tests/day using the Berlin Protocol that WHO recommended
  If the patient needs any hospitalization for any cause
  they need a PCR Diagnostic test COVID -19:
  Nasopharyngeal and oropharyngeal sample

- **Private Hospitals**: All admitted patients tested and submitted to Thorax CT Scan .

Treatment

Eight Categories Ordinary Scale

- Triage
- Risk Classification (points)

  1   : not hospitalized, no limitation of activities

  2   : not hospitalized, limitation of activities, home oxigen requirements
         or both

  3   : hospitalized, not requiring supplemental oxygen.SOC

  4   : hospitalized, not requiring supplemental oxygen.but requeriments of
         ongoing medical care, low risk ,depends on associated morbility

  5   : hospitalized requieres any supplementary O2 : (<15 lt > 15 lts)

  6   : hospitalized requieres not invasive ventilation or high flow oxygen device

  7   :   hospitalized,receiving invasive mechanical ventilation or extracorporeal
             membrane oxygenation (ECMO)

  8   : death

Treatment of Hospitalized Patients

IMSS	SSA	ISSSTE	PEMEX	SEDENA	PRIVADO
n =181,258	n = 313,182	n =24,731	n = 7661	n =3594	n = 17740 (1300)
	Hidroxicloroquine	Vermeptina	Tocilizumab (at beginning)	Tocillzumab	Bariticinib
Dexamethasone		MPN Dexamethasone Prednisone	Dexamethasone (optional)	Dexamethasone	Dexamethasone
	Enoxaparin			Enoxaparin	
Azitromicine	Azitromicine	Azitromicine	Azitromicine	Azitromicine	Ceftriaxone
	Ceftriaxone		Carbapenem	Carbapenem in UTI	Cefetazoline
		Kaletra (Ritonavir + Lopinavir)			Kaletra(Ritonavir+ Lopinavir + RBV)
Convalescent plasma		Vit D			Convalescent plasma
		Vitantenol +Fluticasona			

Mortality Rate

Deaths for Covid-19 in Mexico, Comorbidities Related % until August 10, 2020

Hipertensión — 43,90 %
Diabetes — 37,94 %
Obesidad — 24,55 %
Tabaquismo — 8,07 %

Fuente: Secretaría de Salud de México
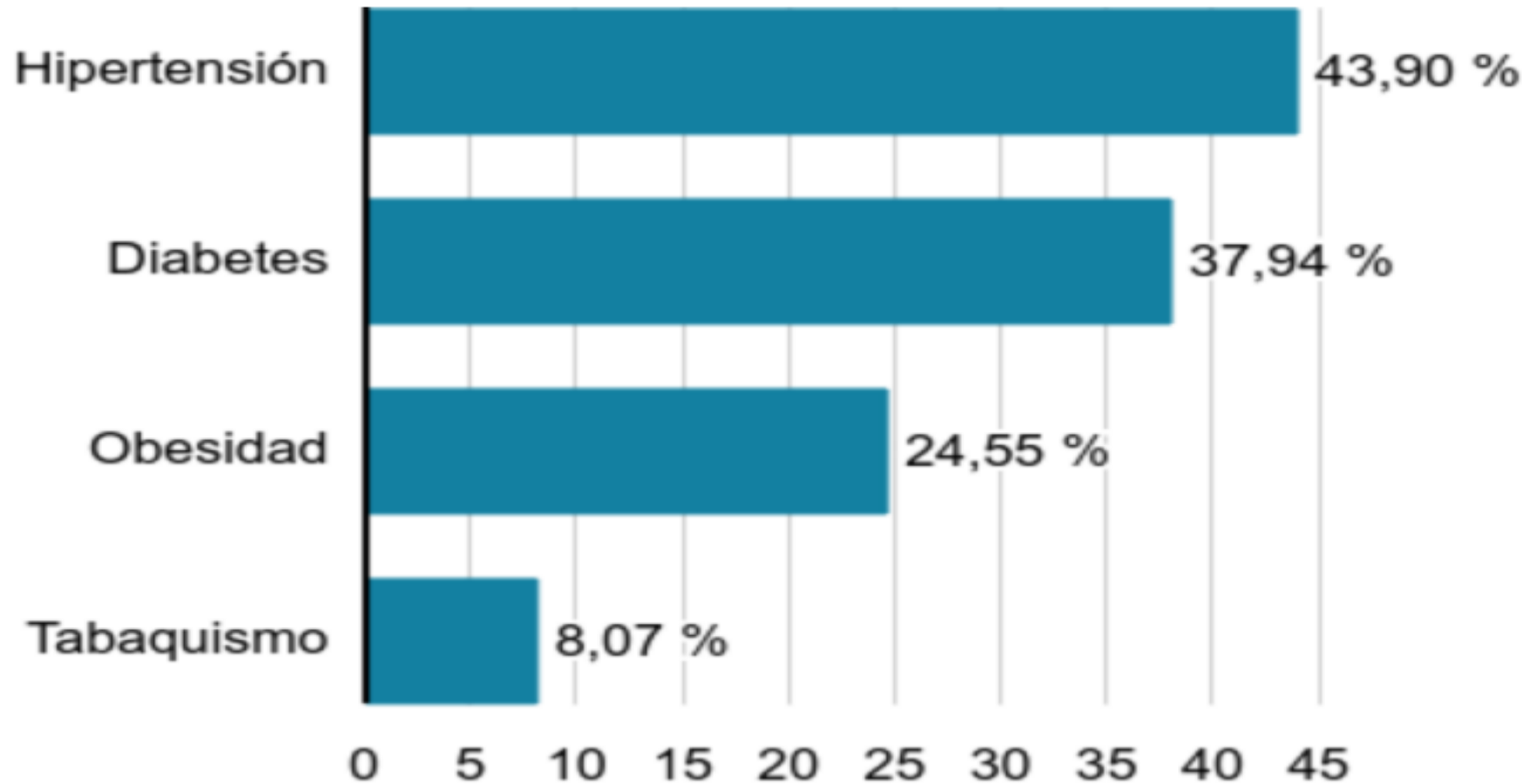
Daily Deaths in Patients Diagnosed with COVID-19
Source : Financial Times August 30
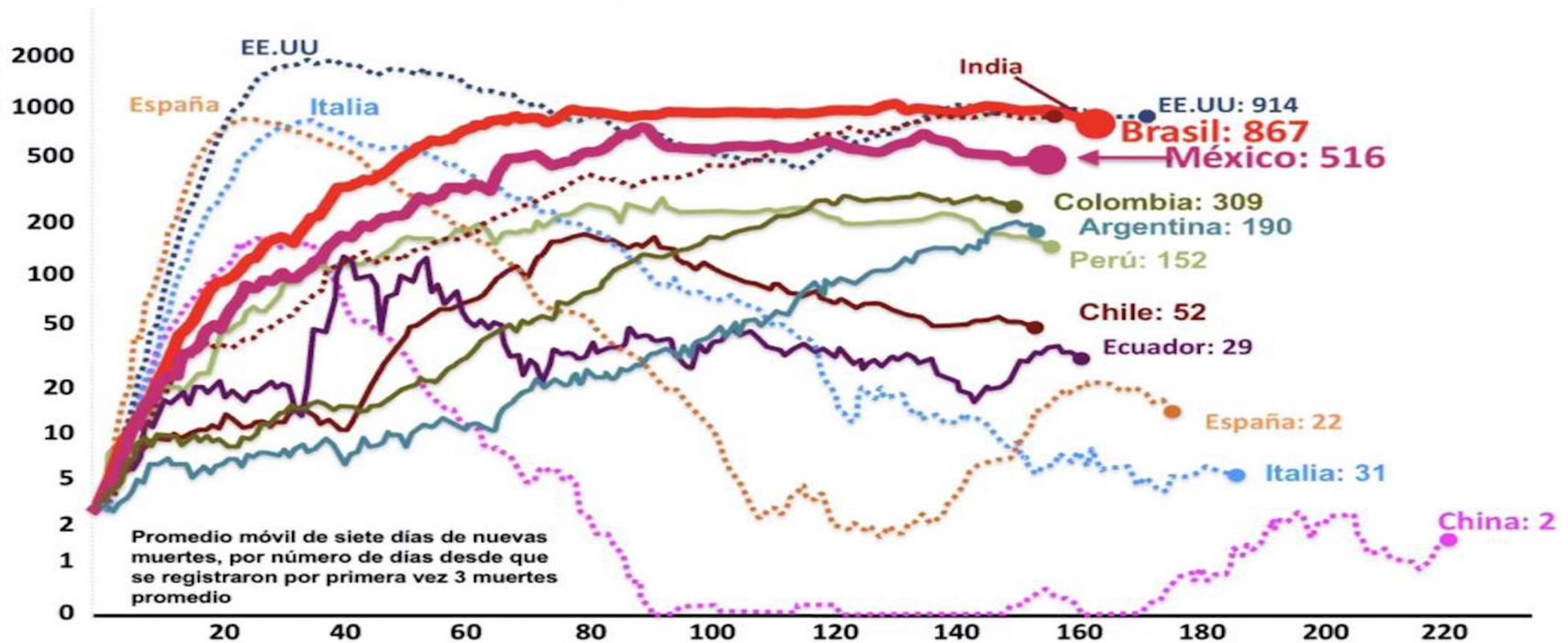
% COVID-19 Deaths vs % World Population

	Población		Muertes	
	%	Rank	%	Rank
China	18.5%	1	0.6%	28
India	17.7%	2	7.7%	3
US	4.2%	3	21.6%	1
Indonesia	3.5%	4	0.9%	19
Pakistan	2.8%	5	0.7%	23
Brazil	2.7%	6	14.3%	2
Nigeria	2.6%	7	0.1%	48
Bangladesh	2.1%	8	0.5%	29
Russia	1.9%	9	2.0%	12
Mexico	1.7%	10	7.6%	4
Colombia	0.7%	28	2.3%	11
Argentina	0.6%	31	1.0%	18
Perú	0.4%	42	3.4%	9
Chile	0.2%	61	1.3%	14
Ecuador	0.2%	65	0.8%	21
Las Américas	13%		55	
LA	8%		33	

Fuente: Estimaciones propias con base en datos de Our World in Data.

% of Hospitalized COVID-19 Patients Who Died
Source: Sanchez Talanquer
Per Date and Attention by Institution

Fuente: Elaborado por Mariano Sánchez Talanquer con base en datos abiertos de la Secretaría de Salud, al 28 de agosto, 2020.
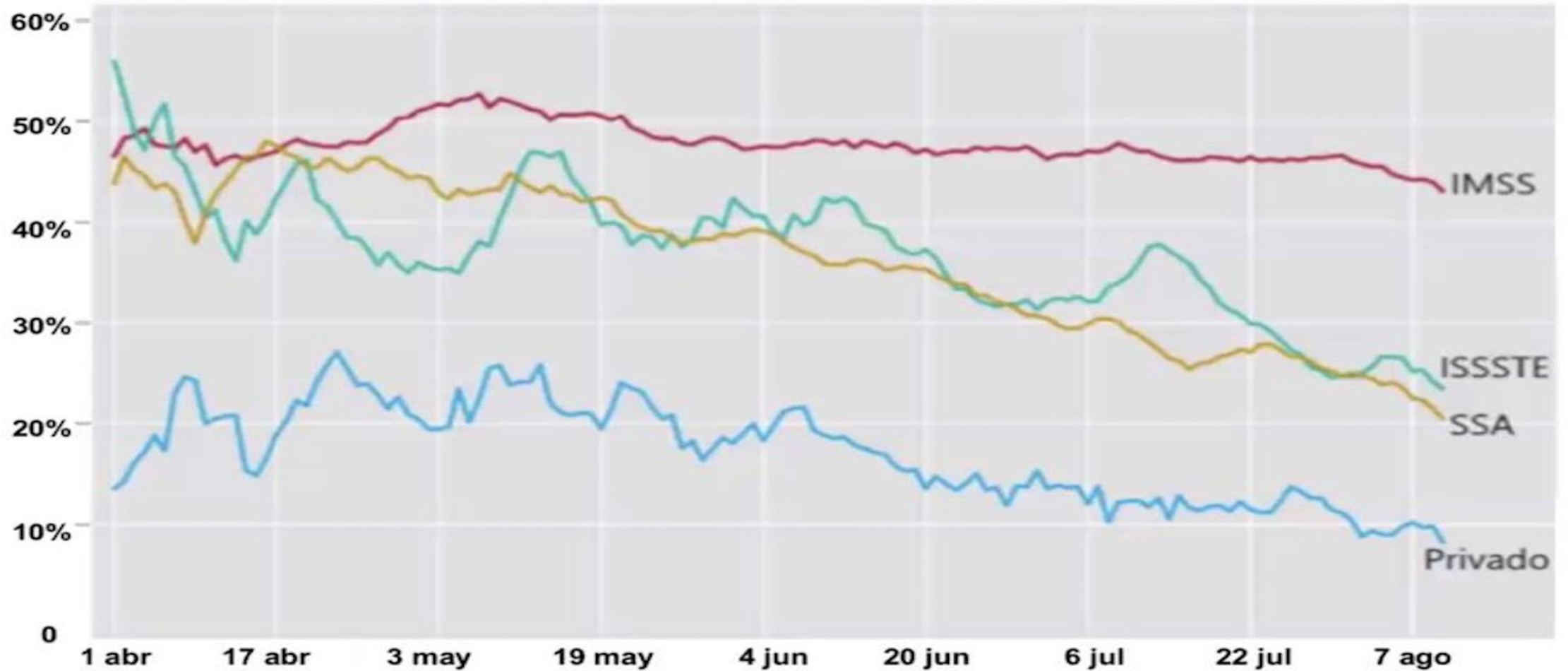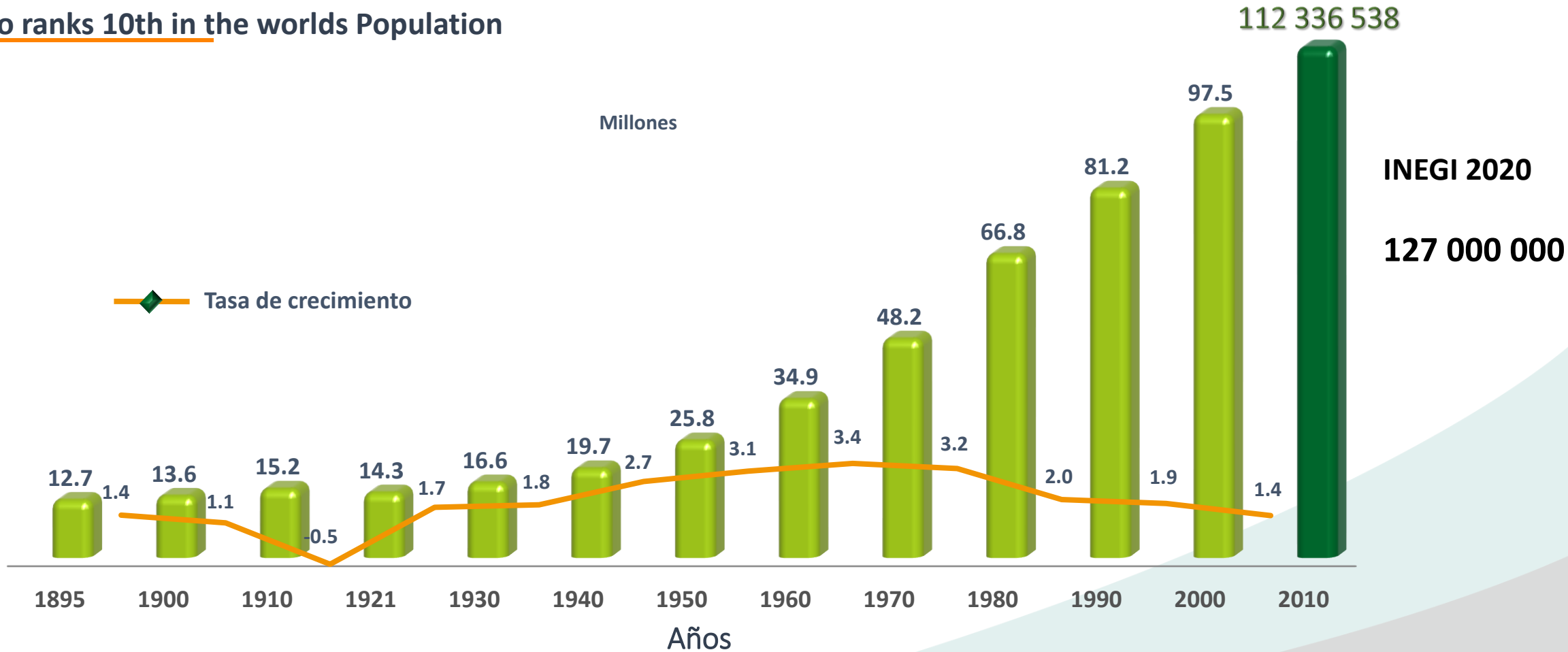
Disparities in Liver Health Exacerbated by the COVID-19 Pandemic

- Delay in the **Diagnosis** : Increase the number of test
  Telemedicine

- Decrease **Access** : Flexibility in resource allocation

- Delay or Lack of **Treatment**

Total Population and Annual Growth Rate 1895-2020

Mexico ranks 10th in the worlds Population

112 336 538

97.5

Millones

81.2

INEGI 2020

66.8

127 000 000

48.2

34.9

Tasa de crecimiento

25.8

3.4

3.2

19.7

3.1

16.6

14.3

2.7

2.0

1.9

12.7

13.6

15.2

1.7

1.8

1.4

1.4

1.1

-0.5

| 1895 | 1900 | 1910 | 1921 | 1930 | 1940 | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 | 2010 |

Años

Percentage of the Population Who Reside in Urban, Rural and Remote Areas in LA

	Total population	Remote areas (≤50 people/mile²)	Rural areas (≤999 people/mile²)	Urban areas (≥1000 people/mile²)
Argentina	43 497 320	26%	57%	43%
Bahamas	358 604	17%	35%	65%
Bolivia	11 218 101	32%	76%	24%
Brazil	201 388 560	15%	54%	46%
Chile	17 911 492	17%	53%	47%
Colombia	52 641 020	6%	55%	45%
Costa Rica	5 232 714	4%	51%	49%
Dominican Republic	10 136 578	0%	56%	44%
Ecuador	15 935 410	5%	49%	51%
Guatemala	16 328 786	2%	60%	40%
French Guiana	254 892	40%	100%	0%
Guyana	748 499	46%	100%	0%
Honduras	8 700 943	4%	60%	40%
Haiti	10 214 702	0%	56%	44%
Mexico	119 173 456	6%	51%	49%
Nicaragua	7 215 355	8%	68%	32%
Panama	3 451 344	12%	79%	21%
Peru	31 874 954	14%	60%	40%
Puerto Rico	4 389 532	0%	38%	62%
Paraguay	7 772 998	16%	53%	47%
El Salvador	7 979 201	0%	37%	63%
Latin America	576 424 661	12%	55%	45%
Canada	34 417 676	14%	45%	55%
Great Britain	60 565 220	2%	44%	56%
USA	321 195 904	11%	45%	55%

The percentage of the population living in remote areas (arbitrarily defined as ≤50 people/mile²), rural areas (defined according to the US Census Bureau⁴⁸ as ≤999 people/mile²), and urban areas (defined according to the US Census Bureau⁴⁸ as ≥1000 people/mile²) was determined for different Latin American countries using data predicted for 2015 from the Socioeconomic Data and Applications Center, a division of NASA.⁴⁹ The population density was converted from arc min (a unit of angular measurement equal to 1/60th of a degree) to miles, assuming that 1 arc min equals roughly 1·16 miles. At sea level, 1 arc min along the equator equals roughly 1 nautical mile (1 nautical mile= 1·16 miles).

Table 2: Percentage of the population who reside in urban, rural, and remote areas⁴⁸

Percentage of the Population Who Reside in Urban, Rural and Remote Areas in Mexico

Mexico	Total Population	Remote Areas	Rural Areas	Urban Areas
	119,173,456	6%	51%	49%

Indigenous Population in Latin America

	Total population	Indigenous population	Percent of population classified as indigenous*
Bolivia	10 290 003	7 305 902	71%
Guatemala	14 099 032	9 305 361	66%
Peru	29 549 517	13 888 273	47%
Ecuador	15 223 680	6 544 660	43%
Belize	327 719	62 693	19%
Honduras	8 296 693	1 243 674	15%
Mexico	114 975 406	16 085 059	14%
Chile	17 067 369	1 365 390	8%
El Salvador	6 090 646	425 736	7%
Suriname	560 157	33 777	6%
Guyana	741 908	44 514	6%
Panama	3 510 045	210 602	6%
Nicaragua	5 727 707	285 813	5%
French Guiana	N/A	N/A	4%
Paraguay	6 541 591	196 248	3%
Trinidad and Tobago	1 226 383	24 773	2%
Colombia	45 239 079	904 782	2%
Venezuela	28 047 938	560 959	2%
Jamaica	2 889 187	57 784	2%
Puerto Rico	3 998 905	79 978	2%
Dominica	73 126	1 462	2%
Barbados	287 733	3 194	1%
Guadalupe	N/A	N/A	1%
Martinique	N/A	N/A	1%
Bahamas	316 182	3 162	1%
Argentina	42 192 494	417 706	1%
Costa Rica	4 636 348	45 436	1%
Brazil	205 716 890	411 434	0%
Uruguay	3 316 328	995	0%
Total for Latin America	580 743 730	59 509 367	10%

Total population statistics for each country, predicted for 2015, were obtained from the NASA Socioeconomic Data and Applications Center.* The total indigenous population was calculated using the reported percentage of indigenous people in each country.* *Rounded to the nearest percent.

Table 3: Total population, indigenous population, and percent indigenous determined for 2015 in Latin America
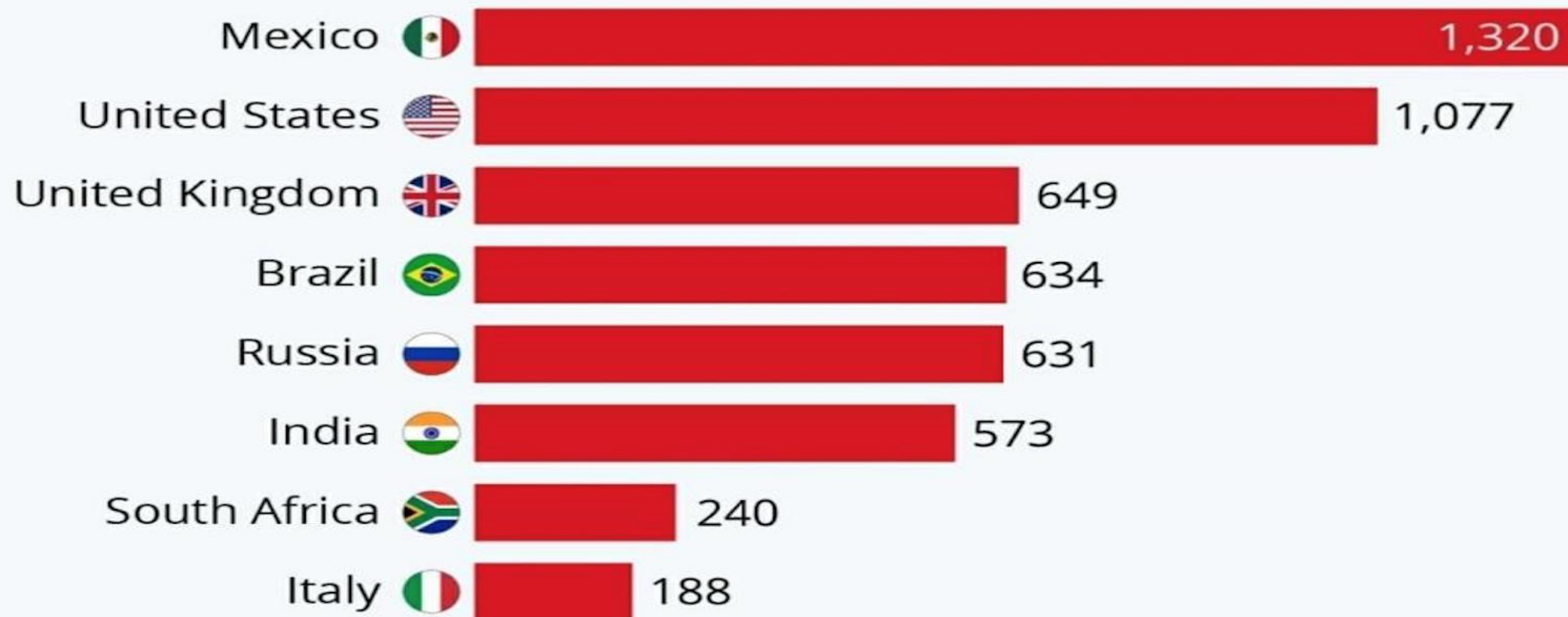
Goss PE.The lancet.com/oncology 2013;14:391-436

Indigenous Population in Latin America

Mexico	Total Population	Indigenous Population	Percent of Population Classified as Indigenous
	114,975,406	16,085,059	14%

COVID-19 and the Liver

- Hospital San José Tec Salud Monterrey N.L.
- n=1300 COVID-19 patients from March to September 2020
- 122 patients with abnormal liver function test
- Underlying chronic liver diseases: 31 (2.38%)
- Hepatic dysfunction with normal liver enzymes when admitted:
   91 (9.4%)
- 112 patients increase of ALT and AST or AP after use of
    Lopinavir/Ritonavir/Baricitinib (DILI)
- Hepatic dysfunction can occur in severe cases and were associated
  with fatal outcome

Where Most Health Workers Have Died From Covid-19

Countries with the highest number of health worker deaths from Covid-19*

Country	Deaths
Mexico	1,320
United States	1,077
United Kingdom	649
Brazil	634
Russia	631
India	573
South Africa	240
Italy	188

*As of September 03. Data represents a snapshot given that definitions of health workers and Covid-19 deaths vary between countries.

Source: Amnesty International

Liver Transplant and COVID -19

- **CENATRA** issued Recommendations to the National Donation and Transplant Subsystem to temporarily suspend organ and tissue donation and transplant programs at the national level, with the exception of this measure to carry out transplants in case of national emergency on **March 1**

- Reactivation of transplant program in **August 14**

- Until September 7, 2020 a cumulative of 42 transplant recipients' deaths for COVID-19 confirmed

- Confirmed cases   : 164 in liver transplant recipients : 10

- Suspected cases   : 21

- Negative cases   : 28

Digestive Endoscopy and COVID -19

- Suspension of activities in Endoscopy Centers
- Only emergency endoscopies
- Since **March 14,2020 to July 2020**
- Currently the reactivation has taken place
  step by step
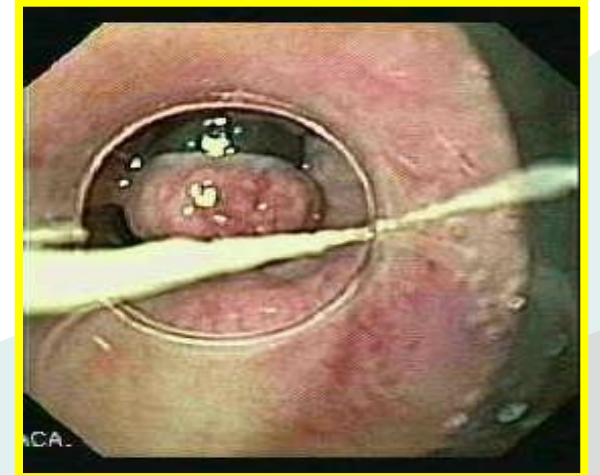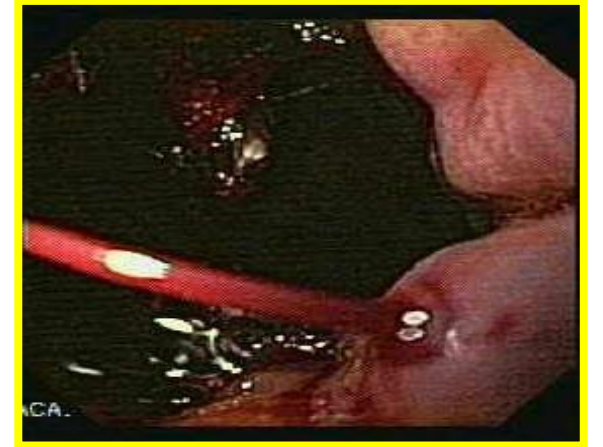
Conclusions

- The differences among three health care systems are abysmal

- We have made exceptional efforts with the resources available to us

The U.S. Public Health Response to COVID-19

Brett E. Fortune, MD, MSc

Associate Professor of Medicine

Center for Liver Disease and Transplantation

Weill Cornell Medicine

New York Presbyterian Hospital

Disclosures

I have no conflicts or financial disclosures for this presentation
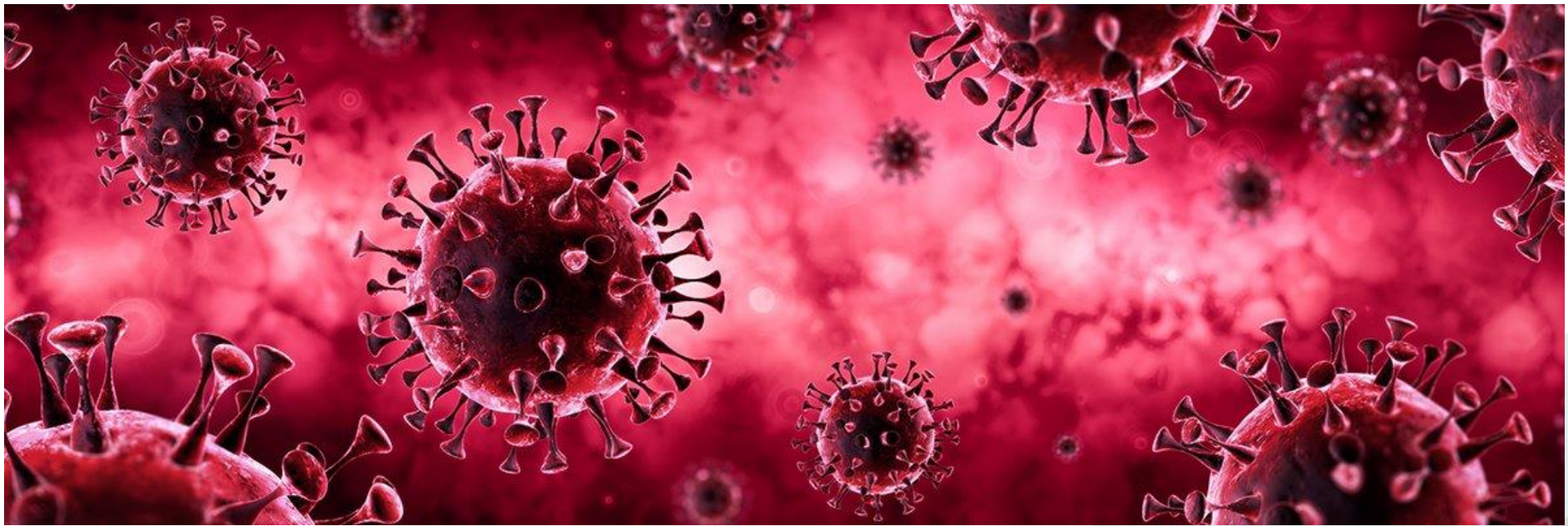
Nearly 7 million CASES **Nearly 200,000 DEATHS**
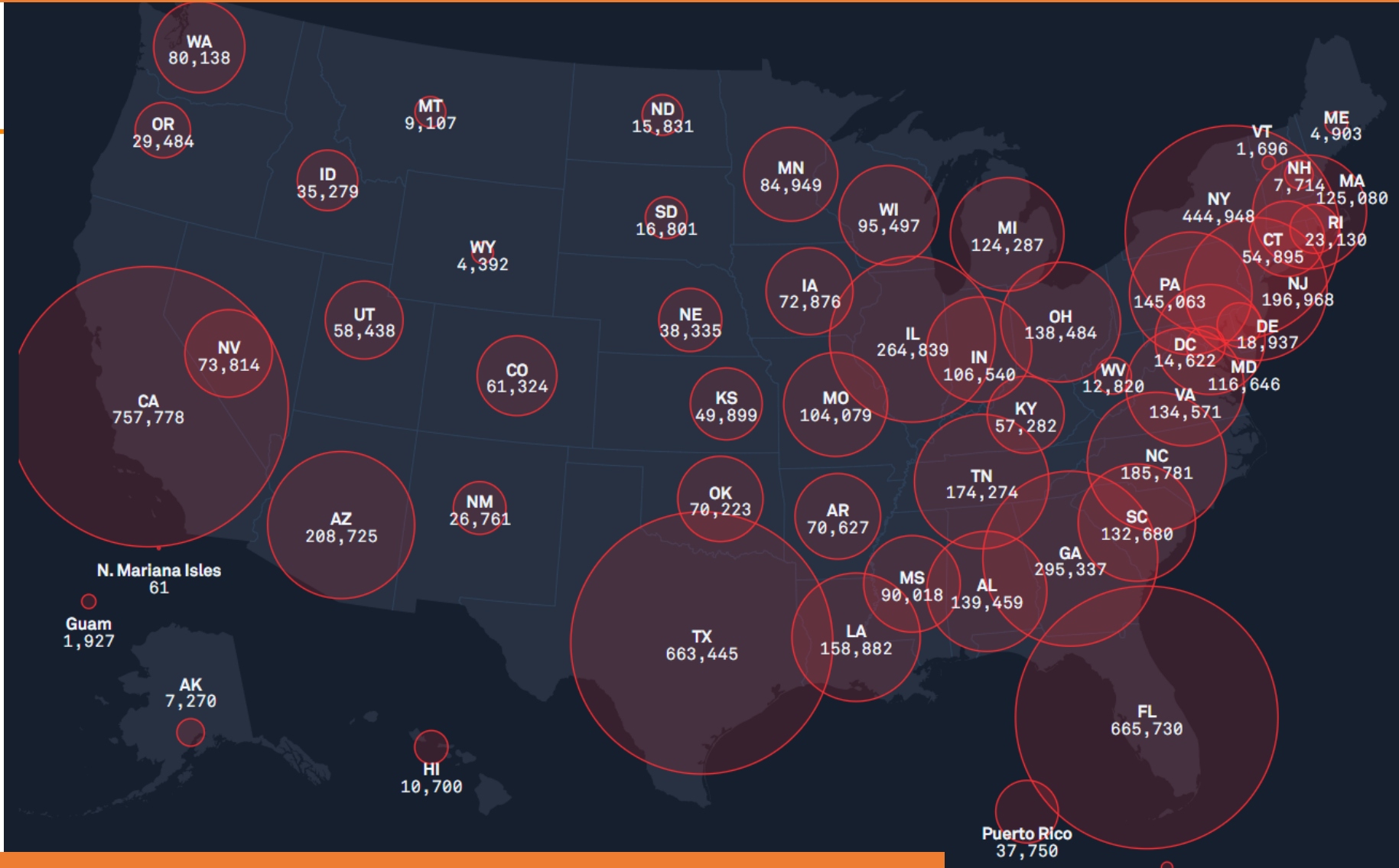
Most Cases and Deaths in the World

Rate of National Burden from COVID-19

NEW KNOWN CASES PER DAY

NEW KNOWN DEATHS PER DAY

New Known Cases

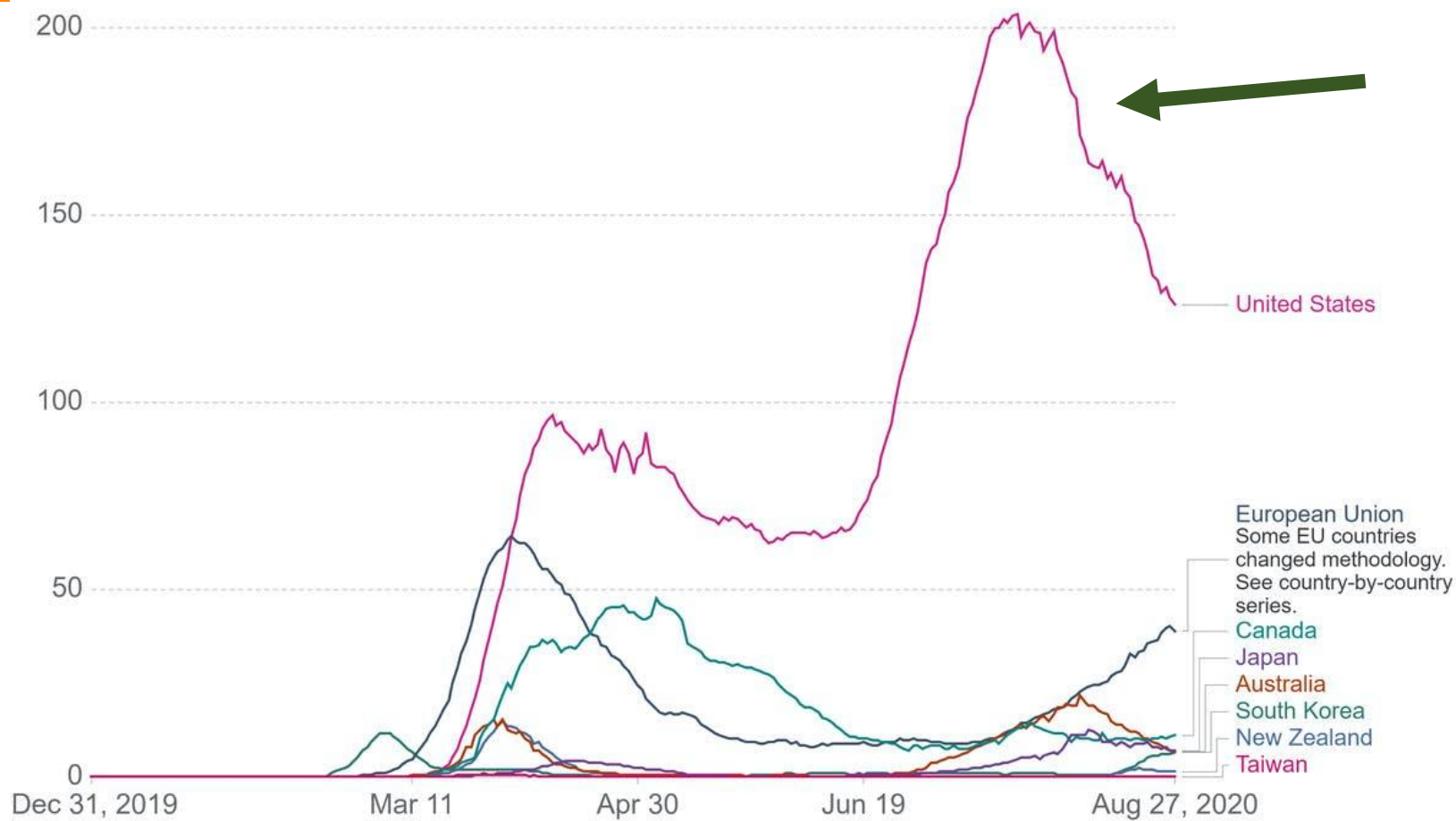New Deaths

Known Cases

Deaths

https://usafacts.org/visualizations/coronavirus-covid-19-spread-map/
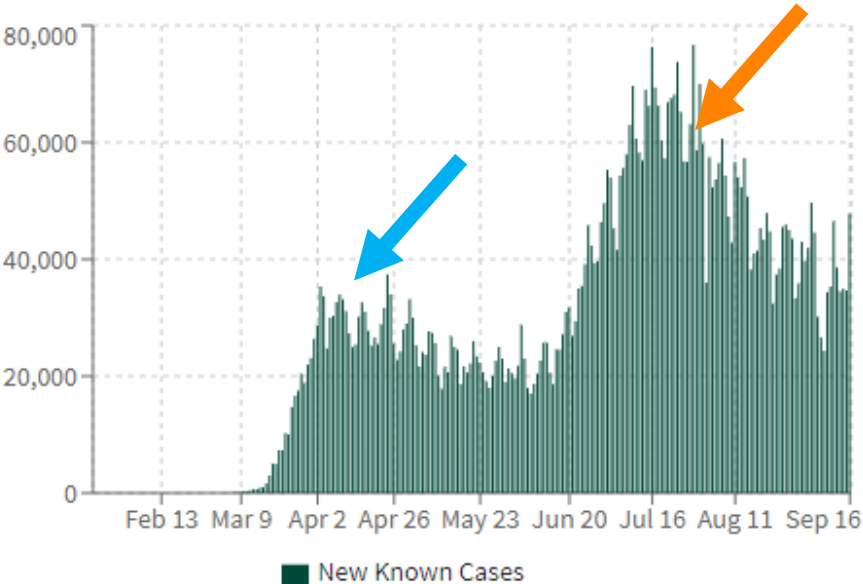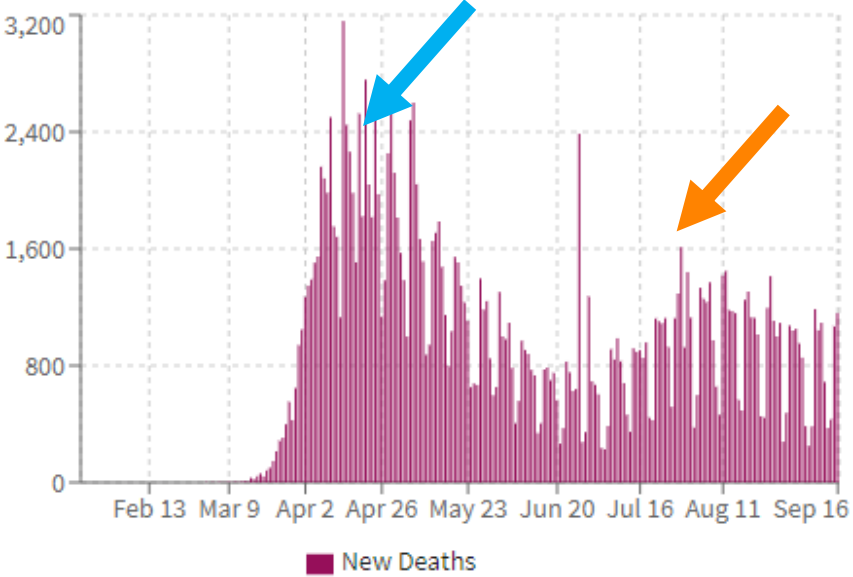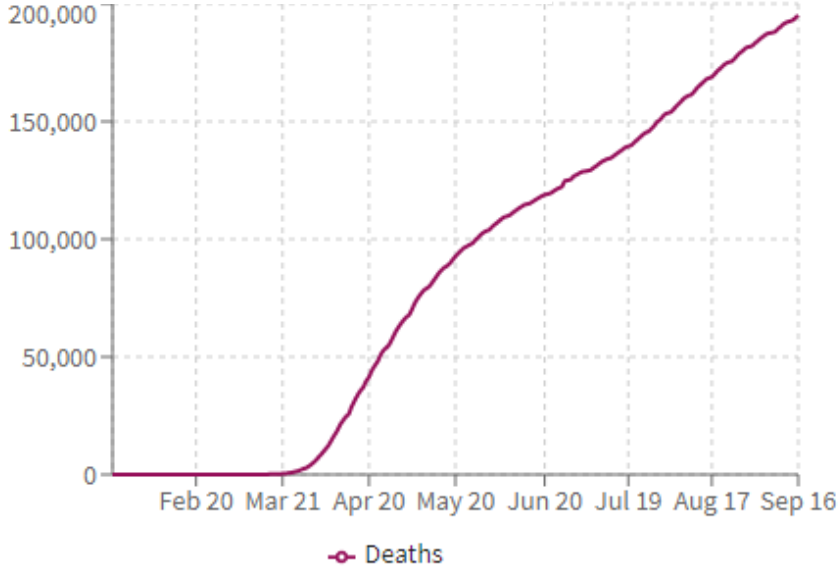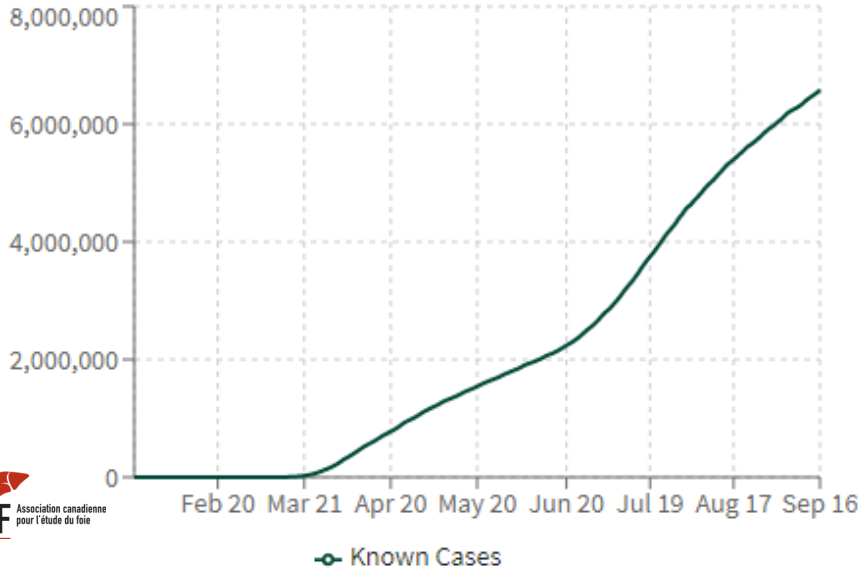
U.S. Compared to Other Countries

Daily new confirmed COVID-19 cases per million people

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.

Source: European CDC – Situation Update Worldwide – Last updated 27 August, 10:34 (London time)

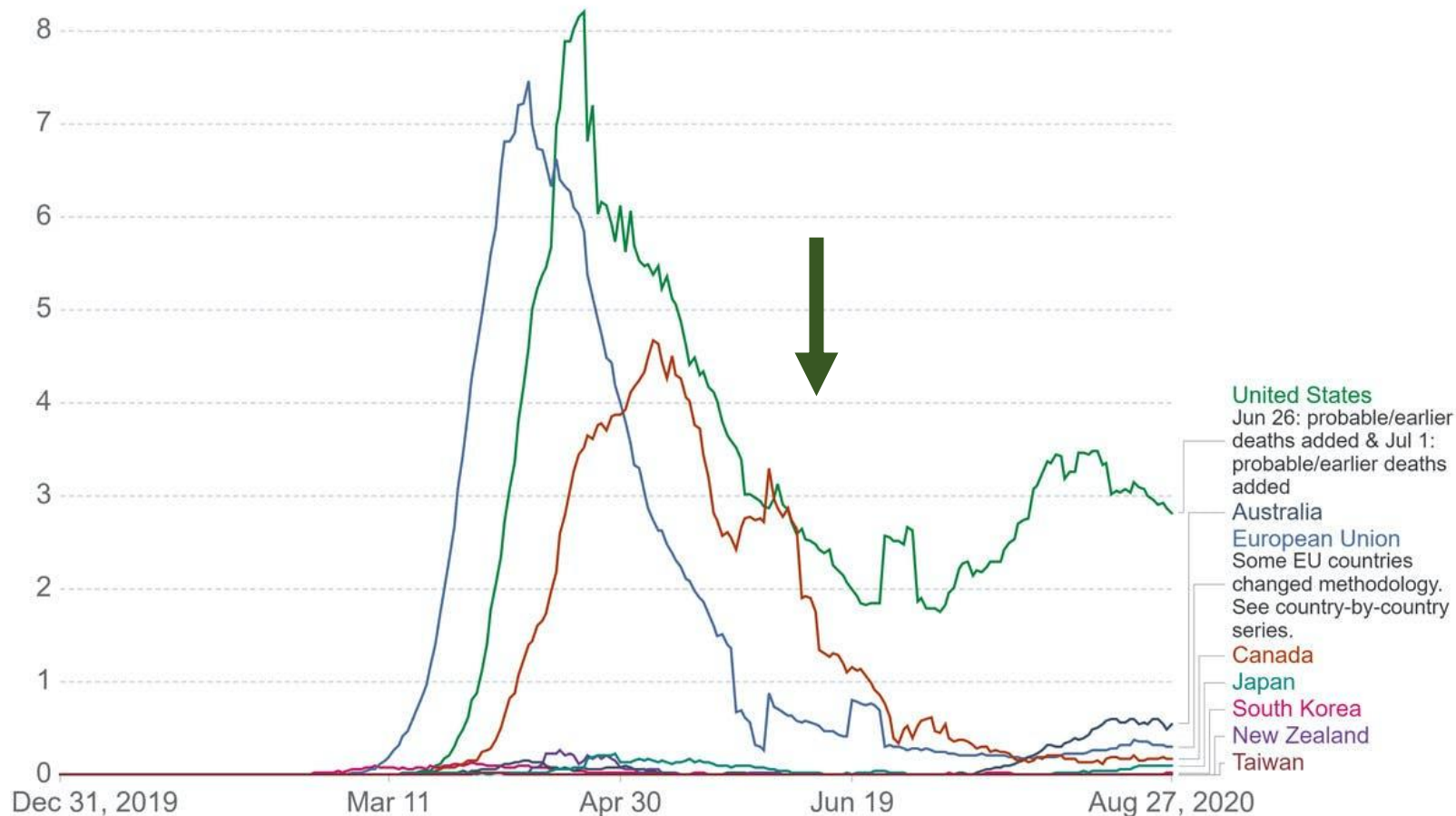https://www.thestreet.com/

U.S. Compared to Other Countries

Daily new confirmed COVID-19 deaths per million people

Shown is the rolling 7-day average. Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19.

Our World in Data

United States
Jun 26: probable/earlier deaths added & Jul 1: probable/earlier deaths added
Australia
European Union
Some EU countries changed methodology. See country-by-country series.
Canada
Japan
South Korea
New Zealand
Taiwan

Dec 31, 2019   Mar 11   Apr 30   Jun 19   Aug 27, 2020

Source: European CDC – Situation Update Worldwide – Last updated 27 August, 10:34 (London time)

CC BY

AASLD
AMERICAN ASSOCIATION FOR THE STUDY OF LIVER DISEASES

ASOCIACIÓN MEXICANA DE HEPATOLOGIA

Canadian Association for the Study of the Liver
CASL ACEF
Association canadienne pour l'étude du foie

https://www.thestreet.com/

Federal and State Response to COVID-19

National State of Emergency Declared – <u>March 13, 2020</u> from <u>White House</u>

March 11, 2020 – WHO declared pandemic

All states under Emergency order by March 16, 2020

➢ **<u>State</u> officials given emergency powers**

- Activate state emergency personnel and funds
  - ❖ Families First Coronavirus Response Act, *March 18 2020 ($192b)*
  - ❖ CARES Act*, April 2020 ($1.8t)*

- Support the needs of local governments

- Protect consumers against price gouging

- Adjust regulations to maximize access to health care - CMS

Nearly <u>3 Trillion Dollars</u> spent for COVID-19 relief in the U.S.

➢ **Efforts to "Flatten the Curve" – <u>State</u> regulations**

- Mandatory face mask use in public

- Social distancing measures:
  - mandatory stay at home orders
  - closures of non-essential businesses
  - bans on large gatherings, limits on bars, restaurants and other public places
  - school closures

- Travel advisories, mandated COVID testing

COVID Case Burden – State Variation

https://coronavirus.jhu.edu/data/state-timeline/new-confirmed-cases/
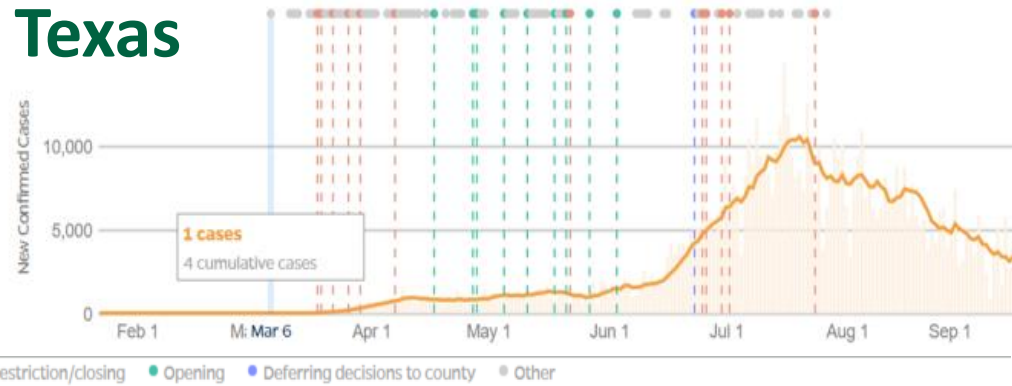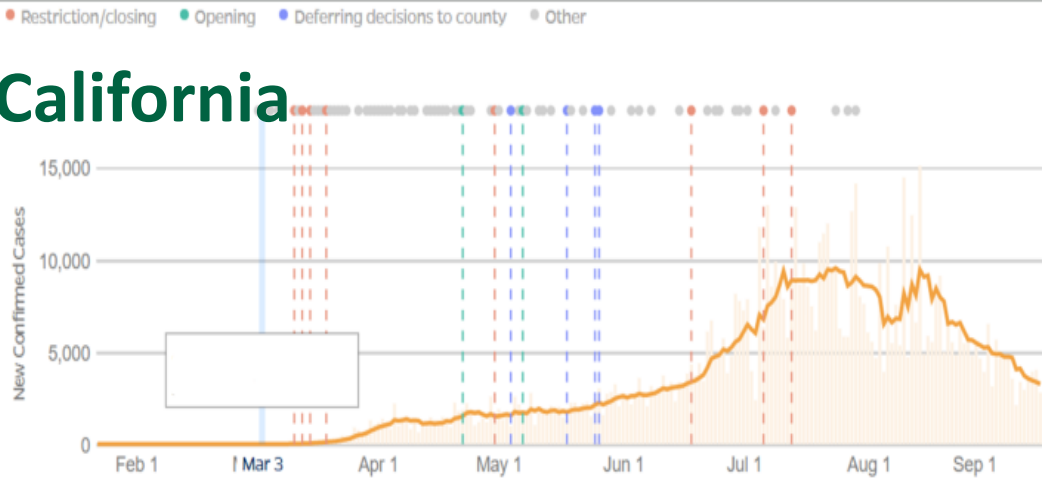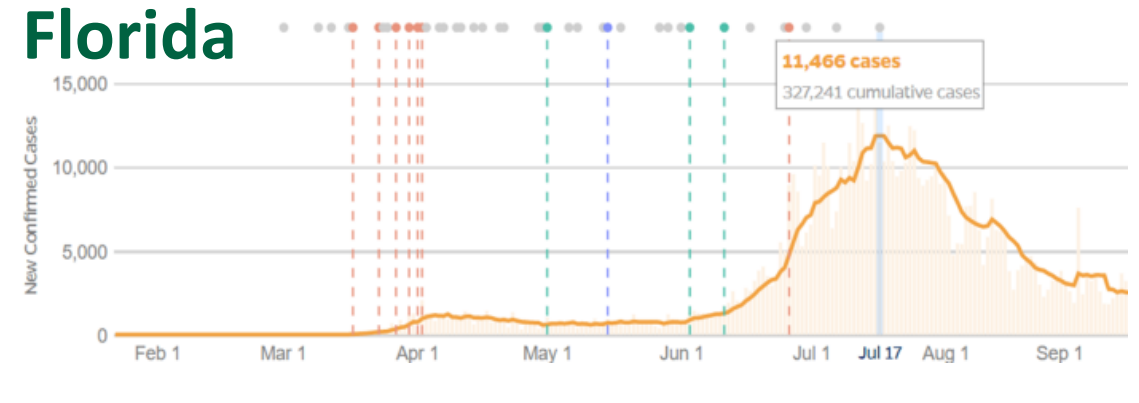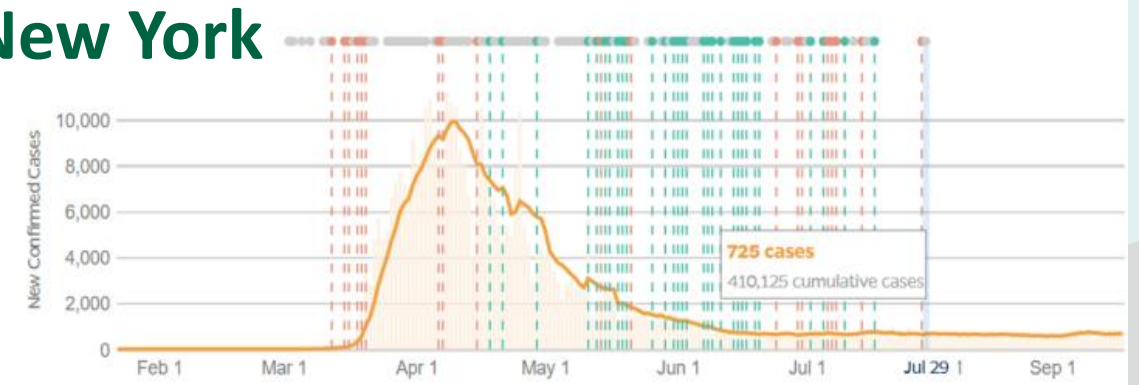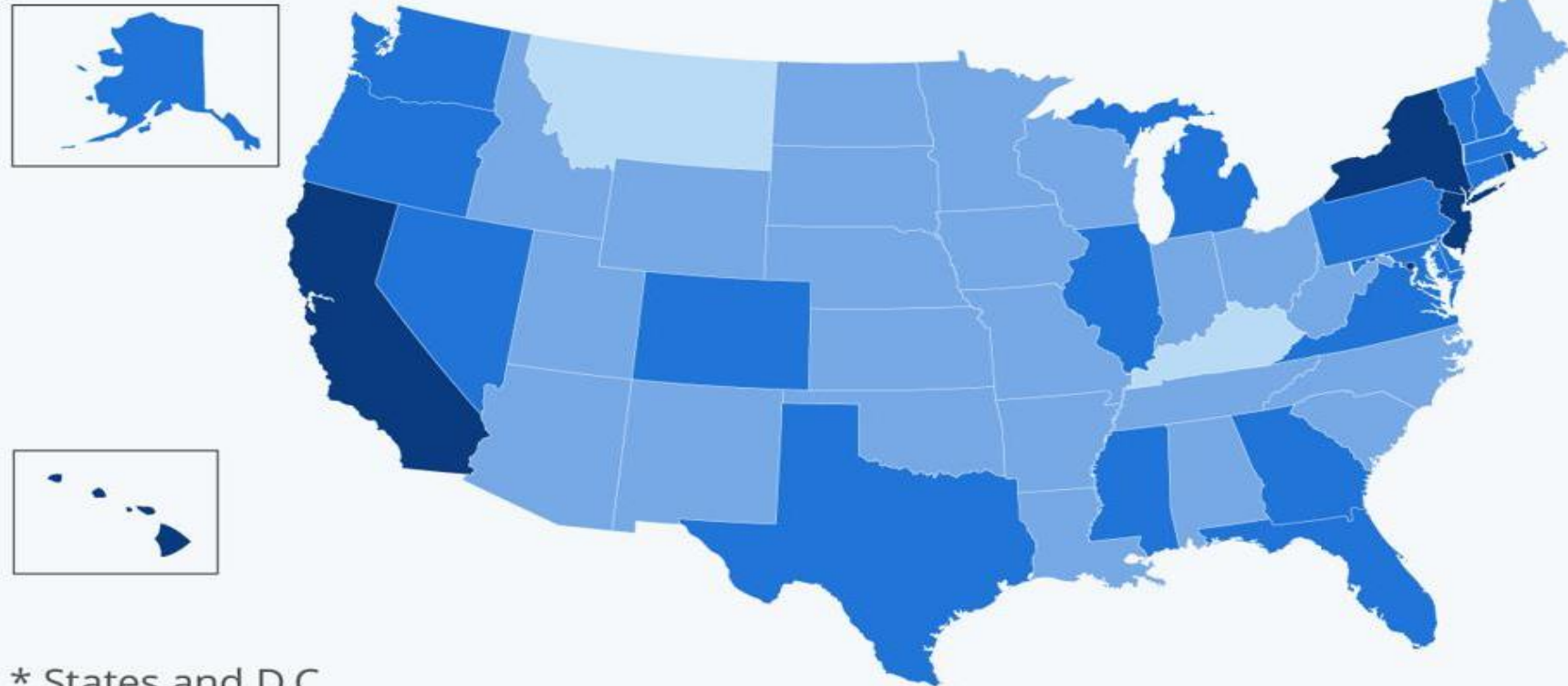
- Significant variation in public acceptance and adherence

- Rapid relaxation on restrictions during reopening phases

The States Most & Least Likely To Wear Face Masks

Share of the public who have worn a face mask in public over the past two weeks*

0-29%   30-39%   40-49%   50-60%

* States and D.C.
n=89,347 (Mar 26-Apr 29, 2020)
Source: YouGov

McCarthy. Forbes. May 12 2020

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Healthcare Policies

- Expansion in hospital financial protection

- Surge in telemedicine utilization
  - Waivers of CMS restrictions and HIPAA
    - Allow more tech platforms and increase access

- Increased funds to rural care centers

- Supplying high demand on viral testing, PPE, and medical equipment

  - ~ 2-4 week deficit during initial surge

Shifts in Healthcare Delivery – Initial Surge

Initial Phase (Inpatient focus):

- Closure of all nonemergent/nonessential procedures or surgeries

  - Expansion of inpatient bed capacity

  - Mobile ICUs

  - Expansion of healthcare workforce

    - Early medical and nursing school graduation

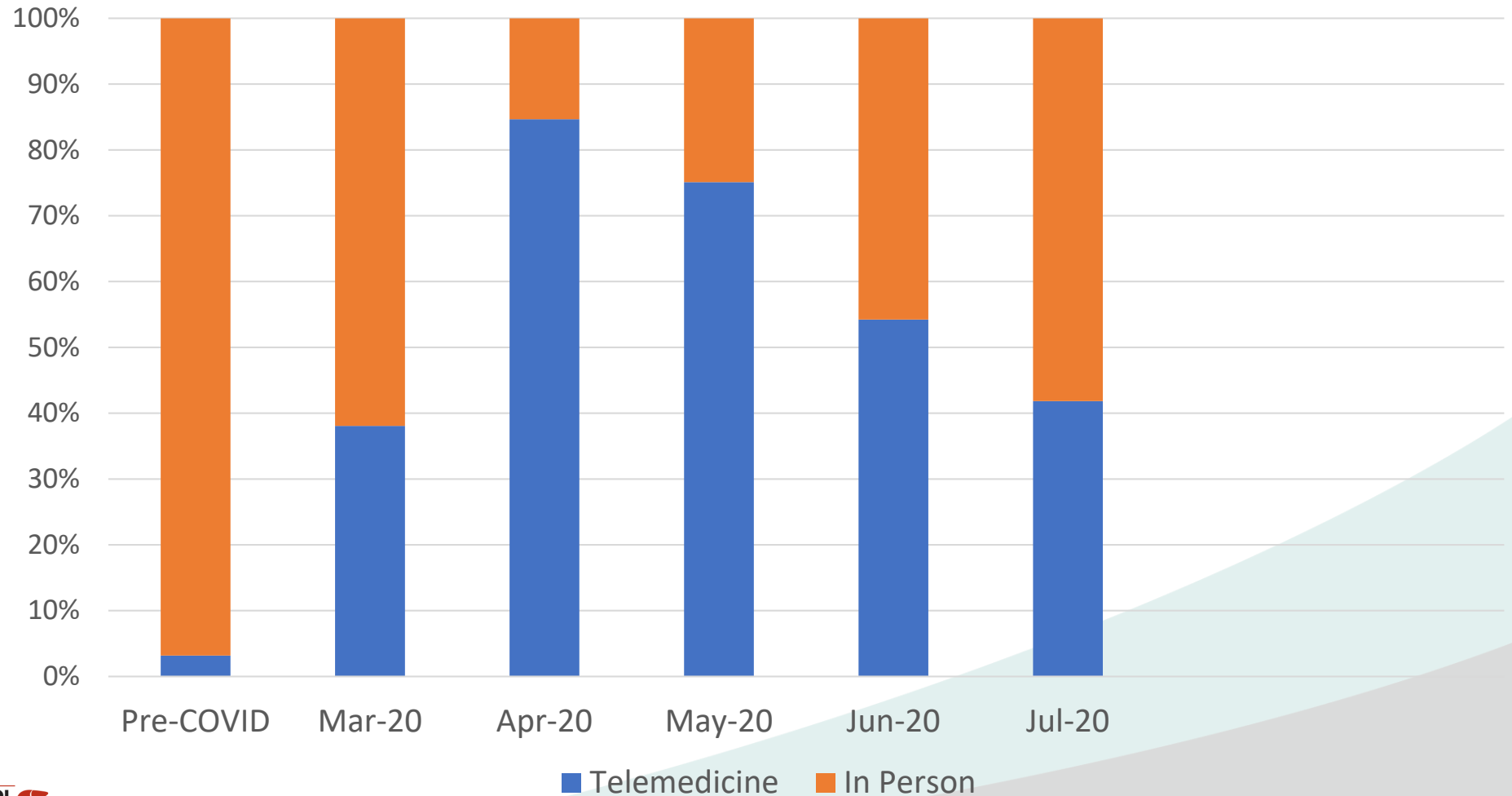   - Voluntary HC workers from low caseload states

    - Redeployment

Second phase (Ambulatory focus):

- Convert nonessential ambulatory care into telemedicine

- Gradual reopening of ORs and procedure units, standardized test protocols

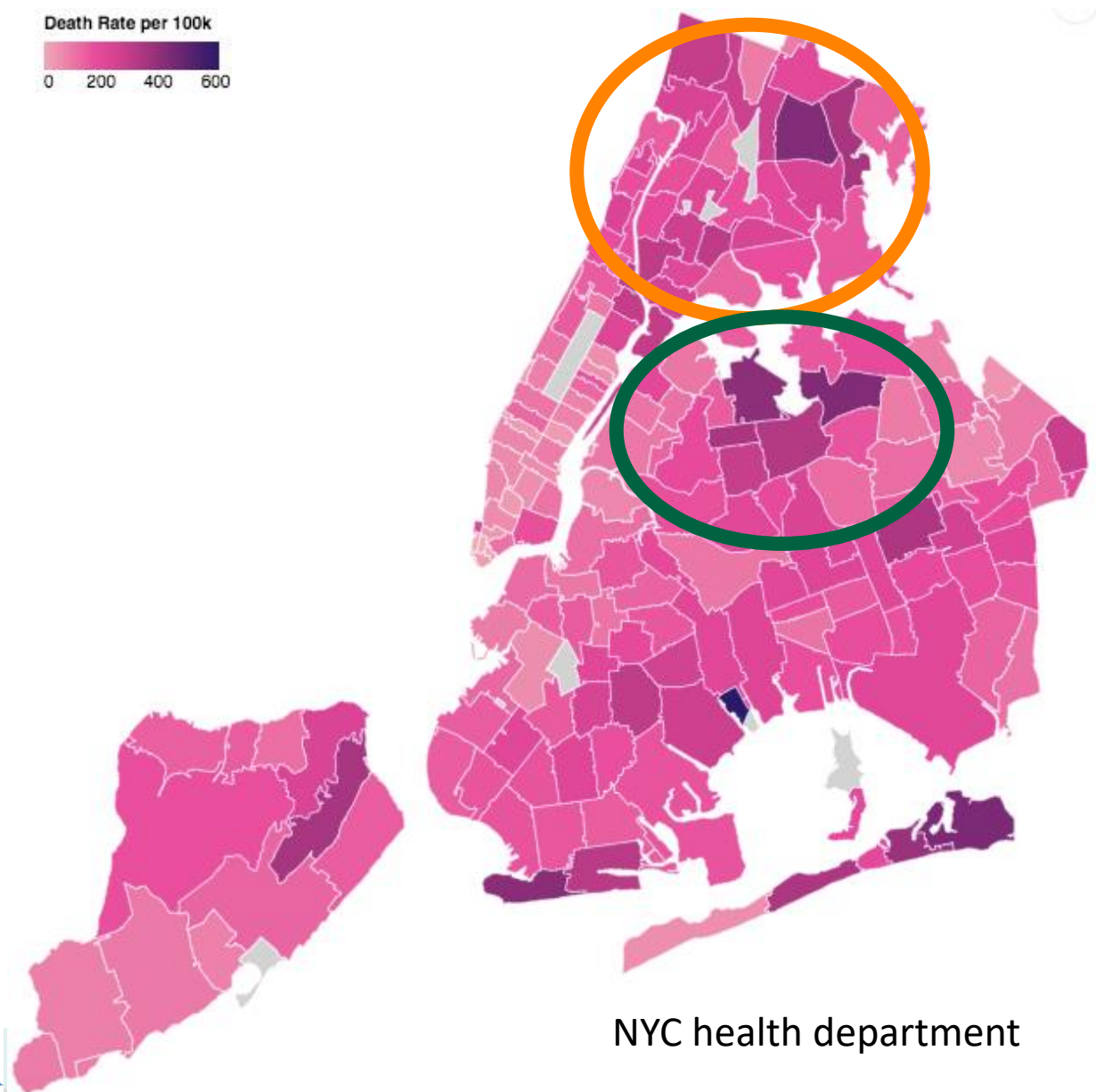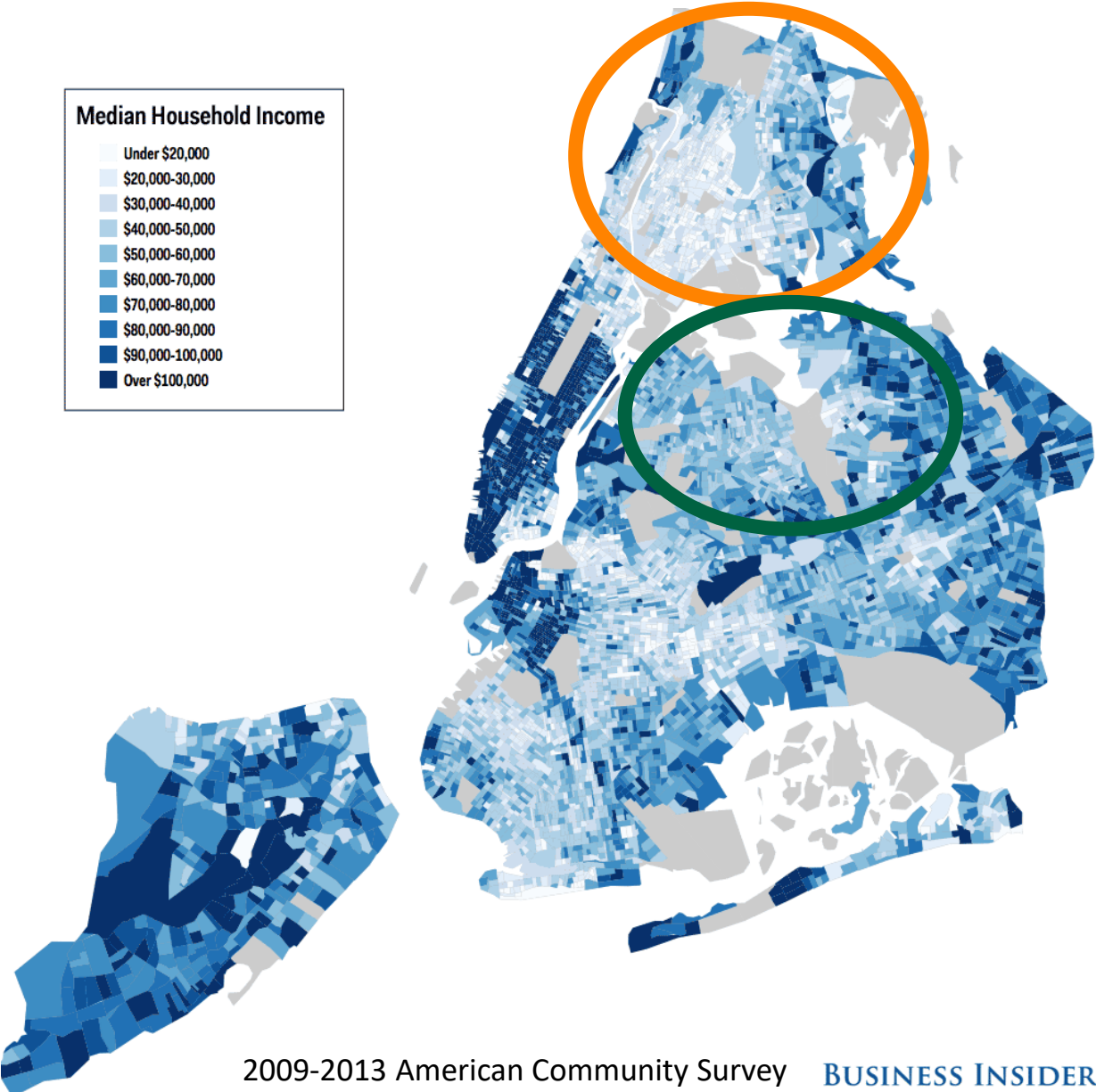# NYC Telehealth Experience
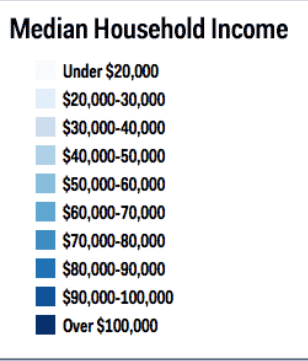
Monthly AVG by Encounter Types

Ongoing Barriers in the U.S.

- Universal access to COVID testing

- Public acceptance of social distancing, face masks during reopening phases

- Overall preparation for potential "second COVID wave" as well as consequences from deferred medical care
  - Vaccination plan when available
    - DON'T FORGET influenza
 - Address disparities in vulnerable populations

Disparities in COVID Outcomes - NYC

Death Rate per 100k

0   200   400   600

Median Household Income

Under $20,000
$20,000-30,000
$30,000-40,000
$40,000-50,000
$50,000-60,000
$60,000-70,000
$70,000-80,000
$80,000-90,000
$90,000-100,000
Over $100,000

2009-2013 American Community Survey

BUSINESS INSIDER

NYC health department

Ongoing Issues for Patients with Liver Disease

- Impact of ongoing public fear
  - Education and reassurance VS. unknown truth on exposure risk

  - Delays in routine testing, screening procedures, and treatment
    - Wave of severe decompensation and Cancer
      - Impact of mental health and substance abuse

- Acceptance of health systems to use virtual care for patients with liver disease
  - Hybrid model for both in-person and virtual care
  - Adjust infrastructure and care delivery models

89
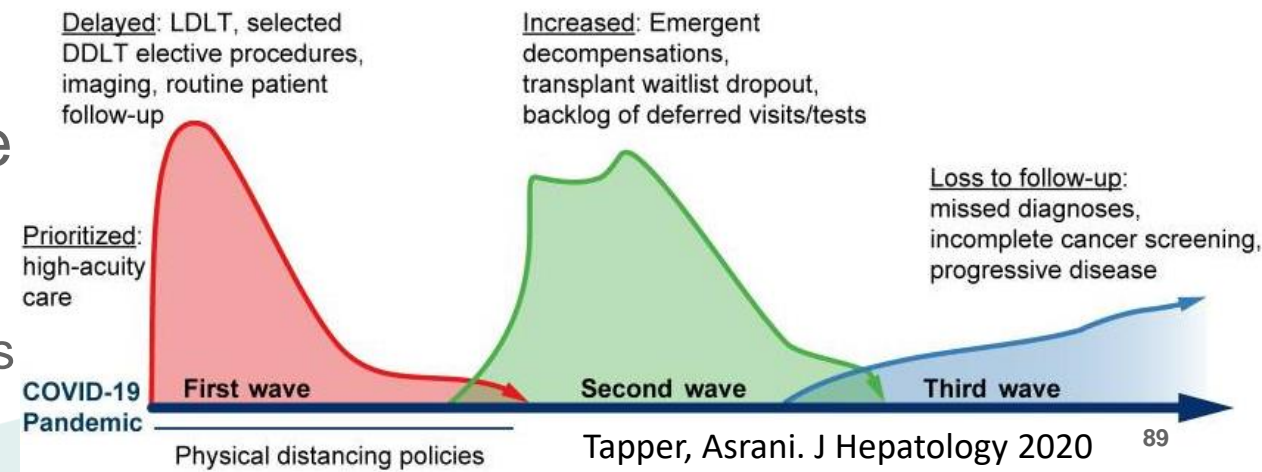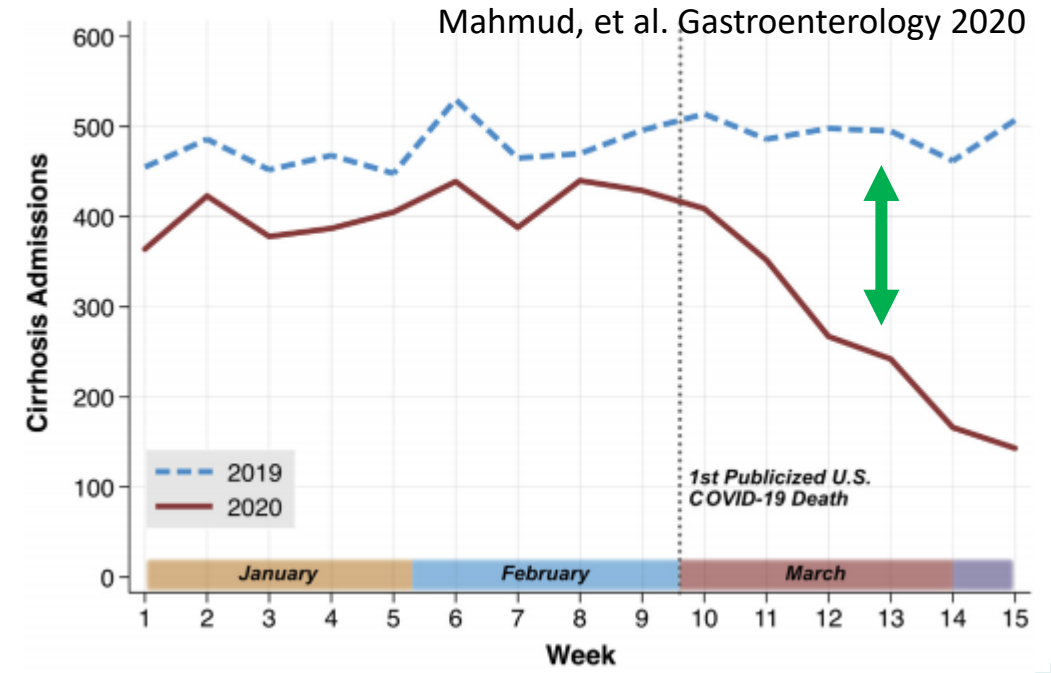
Organ Transplantation During COVID19 Pandemic

Loupy, et al. *The Lancet*. 395:10237; e95-96. May 2020
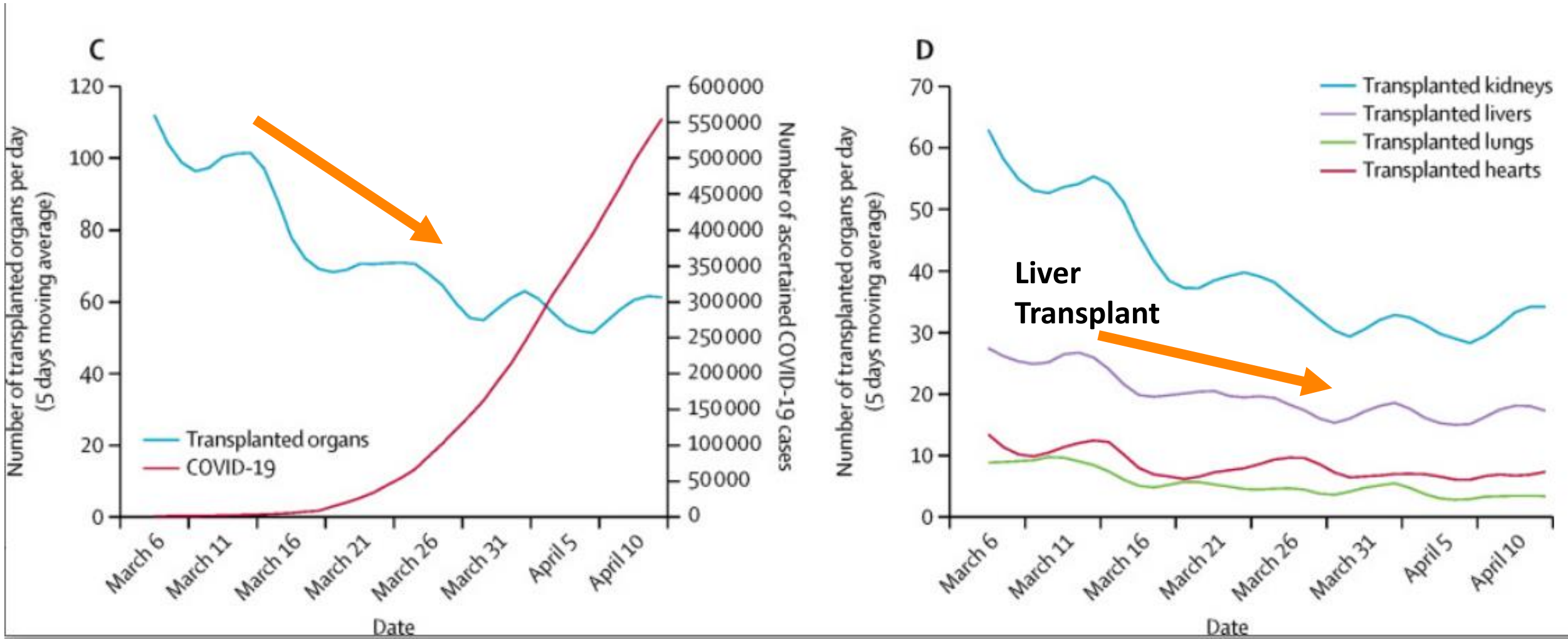
Next Directions…

- Further expansion in medical insurance coverage
  - Telehealth and preventive health programs

- National education efforts
  - Address community disparities using federal, state and local officials to provide a single message

- Continued financial support for health systems and the public
  - Preparation plans for second surge – equipment, PPE, workforce demands

- Vaccination programs (including influenza)

- For patients with Liver Disease, adapt care models to ensure appropriate screening, treatment, plus transplant access

Poll Question

Please let us know what percentage of your practice is CURRENTLY virtual and what percentage of your practice you would like to continue virtually post-pandemic.

Joint Webinar

Panel Discussion

- Please submit your questions to the Q&A Chat now.